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CIA-RDP86-00513R001238920001-5

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001238920001-5"

PALYUSIK, M.

notes on the selectivity of minimal systems. In:  
"Entitlungen", vol. containing 11, no. 4, 1973, p. 10.

. Department of Psychology, "Sekretor, Prof. Dr. Meringer"  
of the University of Innsbruck, Innsbruck, Budapest.

PALYUSIK, M.

Phage sensitivity of *Salmonella typhi-suis* bacteria. Acta  
veter Hung 13 no.3: 281-283'63.

The resistance of ~~chloramphenicol-treated~~ *S. suis* bacteria to  
streptomycin. 285-287.

Biochemical properties of *Salmonella typhi-suis* strains  
isolated in Hungary. 307-310

1. Department of Epizootiology (Director: Prof. R.Marringer)  
of the University of Veterinary Sciences, Budapest.

PALYUSIK, M.

Preparation of experimental vaccine against the chronic paratyphoid  
of pigs. Pts. 1-2. Acta veter Hung 14 no.1:71-82 '64.

1. Department of Epizootiology (Director: Prof. R. Manning) of the  
University of Veterinary Sciences, Budapest.

PALYUSIK, M.

Preparation of experimental vaccine against the chronic pneumonia of pigs. Pt. 3. Acta veter Hung 14 no. 2.211-217 '64.

1. Department of Epidemiology (Director Prof. h. Manninger),  
University of Veterinary Sciences, Budapest.

## HUNGARY

SALYMIK, Matyas, Dr, docent, candidate of veterinary sciences; Department of Epidemiology, University of Veterinary Medicine (Allatorvostudományi Egyetem Jarványtani Tanszéke) (department head: MANNINGER, Rezső, Dr, prof. emer., academician)

"The Antigen Structure of Hungarian Strains of *Salmonella Typhi-Suis* bacteria."

Budapest, Magyar Allatorvosok Lapja, Vol 17, No 12, Dec 62, pp 463-467.

Abstract: [Author's English summary modified] 110 strains were isolated mainly from pigs dead from or carriers of Volagsen-paratyphoi. Using the agglutination technique it was found that 97 strains were identical with the diphasic ones known in the literature as *S. typhi-suis* (Glasner). 11 were found to be identical with the nonspecific monophasic strains of *S. typhi-suis* varietas Voldagser. 2 strains were found to be in the specific monophase not yet described for this bacterium. The induction of the specific C phase of the 11 nonspecific strains succeeded already in the first step of culturing on media containing 1:5 antibodies. The induction of the missing 1:5 phase was successful in only one of the two specific monophasic strains. [6 Soviet-Bloc, 12 West-European references]

HUNGARY

PALYUSIK, Matyas, Dr, candidate of veterinary sciences; University of Veterinary Sciences, Department of Epidemiology (Allatorvostudomanyi Egyetem, Jarvanytani Tanszék) (chairman: MANNINGER, Rezső, Dr, professor, academician).

"The Sensitivity to Antibiotics of Strains of *Salmonella Typhi-suis*, Isolated in Hungary."

Budapest, Májár Allatorvosok Lapja, Vol 18, No 9, Sept 63, pages 356-357.

Abstract: [Author's English summary modified] Paper discs have been used for the in vitro investigation of the sensitivity of various strains of *Salmonella typhi-suis* toward antibiotics. The following sequence of in vitro effectiveness has been established: Chloramphenicol > polymixin b > tetracyclines > neomycin > streptomycin. 8 Eastern European, 5 Western references.

1/1

PALYUSIK, Matyas, dr., egyetemi docens, az állatorvostudományok kandidátusa

Phage sensitivity of *Salmonella typhisuis* bacteria. Magy állatorv  
lap 19 no.4:131-132 Ap '64.

1. Chair of Epidemiology, University of Veterinary Medicine  
(Head of Chair: Academician Dr. Rezso Manninger), Budapest.

PALYUEIK, Matyas, dr., egyetemi docens, az állatorvoslati műnyök kandidátusa

Experimental for producing vaccine against cholera-like  
typhoid fever of pigs. Pt. 2. Magy állatorv. lap. 19  
no.2:37-39. Budapest.

1. Chair of Epidemiology, University of Veterinary Medicine  
(Head of veterinary department Dr. László Munkácsy), Budapest.

HUNGARY

PALYUSIK, Matyas, University Docent, Dr., Candidate of Veterinary Sciences,  
Chair of Epidemiology at the University for Veterinary Sciences  
(Allatorvostudomanyi Egyetem Jarvanytani Tanszeke) [location not given]  
(Head: MESZAROS, Janos, Dr., Candidate of Veterinary Sciences).

"Pneumomycosis in One-Day-Old Ducks Caused by *Aspergillus Fumigatus*"

Budapest, Magyar Allatorvosok Lapja, Vol 21, No 5, May 1966, pp 201-202.

Abstract: An outbreak of pneumomycosis was observed on an east-Hungarian farm during May and Jun 1964. The disease, characterized by respiratory difficulties, caused a 4.2% fatality rate, in the 3-4 day old age range. The lung tissue in the afflicted animals showed hemispherical nuclei of yellowish color. The culture tests showed that the symptoms were caused by *Aspergillus fumigatus*. Relief was obtained by increasing the cleanliness of the farm, specifically replacement of the sawdust floor covering layer, disinfection of all equipment, and improved cleanliness in the handling of the eggs. 12 references, including 2 Russian, 2 German, and 8 Western.

1

S/044/62/000/003/004/092  
C111/C222

AUTHOR: Palyutkin, V. G.

TITLE: On the properties of sets that are effectively different from the sets of projective systems

PERIODICAL: Referativnyy zhurnal, Matematika, no. 3, 1962, 11, abstract 3A69. ("Izv. Krymsk. ped. in-ta", 1961, 35, 301-307)

TEXT: Ya. L. Kreynin (Rzh. Mat., 1950, 8706) has already introduced the concept of a set  $T_\phi$  which is effectively different from the  $\phi$ -sets. He also defined a set  $P_\eta$  (Rzh. Mat., 1959, 8966) which is effectively different from the  $L_\eta$ -sets. This is a positive set-theoretical operation,  $L_{T_\phi}$  is an operation which gives the projective sets of class  $\eta$ . In addition, Ya. L. Kreynin proved (Rzh. Mat., 1959, 1356) that the sets  $T_\phi$  and their complements  $R - T_\phi$  contain not only discontinuums, but also kernels of more complicated structures: There exist such absolute  $G_\phi$ -sets  $E_1$  and  $E_2$  that  $E_1 \subset T_\phi$ ,  $E_2 \subset R - T_\phi$ , and  $E_1$  is not separable from  $R - T_\phi$ , whereas,  $E_2$  is not separable from  $T_\phi$  through

Card 1/2

S/044, 62, 000, 003, 004/092  
C111/C222

On the properties of sets that ...  
any  $F_{\sigma}$  - sets, if  $\phi$  is more powerful than the operations of the  
upper and lower limits. The author proves that  $P_r$  and  $R - P_r$  have the  
same properties, where  $P_r$  is effectively different from all  $L_r$  - sets.  
The text of the article contains a multitude of misprints.  
[Abstracter's note: Complete translation.]

Card 2/2

PAYUTKIN, V

Equivalent of the "MIRA" ring group.  
Ukrainian name "MIRA 17".

KATS, G.I. (Kiyev); PALYUTKIN, V.G. (Kiyev)

Example of a ring group generated by Lie groups. Ukr mat.  
zhur. 16 no.1:99-104 '64. (MIRA 17:5)

PAMAS, P., kinoorganizator (Strusovskiy rayon, Ternopol'skaya oblast', USSR).

Moving-picture evenings in a rural club. Kinomekhanik no.4:12 ap '53.  
(MLRA 6:6)  
(Moving-pictures)

L-11378-63

ENI(n)/BDS APFTC/ASD

S/120/63/000/002/015/041

51  
50

AUTHOR:

Panasyuk, I. S.

TITLE:

Measuring the absolute activity by the coincidence method when several identical particles are created during each decay event.

19

PERIODICAL:

Pribory i tekhnika eksperimenta, March-April 1963, v. 8, no. 2,  
66-68

TEXT:

The author derives new formulas for the absolute activity of a radioactive substance for the case in which an arbitrary number of practically identical particles registered with the double-coincidence method is generated during each decay event. If each decay event is accompanied by generation of a sufficiently large number of identical particles with an isotropic distribution in space, and if the sample under investigation, the registering devices being

Card 1/2

L 11378-63

S/120/63/000/002/015/041

*Measuring the absolute activity...*

used, and their relative locations are such that the possibility of registering each decay act is independent of its location in the sample, the formulas obtained reduced to the well-known H. Geiger and A. Werner formula.

ASSOCIATION: Institut atomnoy energii AN SSSR (Atomic Energy Institute, Academy of Sciences USSR)

SUBMITTED: May 7, 1962

*Ja/bb*

Card 2/2

PAMAZANSKAYA, L.F.; ULYBINA, I.N.

Activity of the phosphatases of the brain in rats after whole  
body X-ray irradiation. Nauch. soob. Inst. fiziolog. AN SSSR no.1:  
172-174 '59. (MIRA 14:10)

1. Laboratoriya radiobiologii (zav. - D.A.Chetverikov) Instituta  
fiziologii imeni Pavlova AN SSSR.  
(X-RAYS--PHYSIOLOGICAL EFFECT) (PHOSPHATASES)

GONTEA, Iancu; DUMITRACHE, S.; ISVORANU, Zenovia; PAMBUCCIAN, G.

Importance of proteins for resistance of the body to a toxic substance  
(phenylhydrazine). Med. intern. 13 no.11:1529-1540 N '61.

1. Lucrare efectuata la Catedrele de alimentatie si anatomie patologica,  
I.M.P. Bucuresti.

(ANEMIA, HEMOLYTIC experimental)  
(PROTEINS nutrition & diet)  
(PHENYLHYDRAZINE toxicology)

PAMBUCCIAN, Gr.; CIRONEANU, I.

Observations on experimental trichinellosis in white rats. Romanian  
med. rev. no.2:8-13 '62.  
(TRICHINOSIS)

PAMBUCCIAN, Gr.

RUMANIA

NICULESCU, T.

MD

Department of Labor Hygiene and Professional diseases, and the  
Department of Pathological Anatomy, Institute for Medicine and  
Pharmacy, Bucharest (Catedra de Igiena a Muncii si Boli Profesionale  
si Catedra de Anatomie Patologica, I.M.P., Bucuresti).

Bucharest, Izv. Acad. RSR, Revista de Igiena si Sanatate Publica, No 5,  
vol XI, Sep-Oct 62, pp 465.

"Experimental Research on the Toxicity of methyl methacrylate."  
(Paper compiled in the Department of Labor Hygiene and Professional  
Diseases, and the Department of Pathological Anatomy, Institute for  
Medicine and Pharmacy, Bucharest.)

Co-author:

PAMBUCCIAN, Gr., Lecturer, Institute for Medicine and Pharmacy,  
Bucharest.

PAMBULCEHAN, SF.

- (27) (28)
- Bucharest, Romania, Vol. II, No 2, May - Apr 62
1. "Occupational Cancer of the Skin in Oil Refineries and the Machine Industry", Prof. P. RADU; pp. 7-111.
  2. "The Adiopathogenic Role of Fibrous Structured Dust in Pneumoconiosis", Dr. B. SAMICA, Dr. Radu, Dr. RIFUA and Dr. PREPARAT, work performed at the I.R.P. INSTITUTE OF INDUSTRIAL PUBLIC HEALTH, Bucharest, Romania; pp. 111-123.
  3. "Radiation in the Organism. Radiation and Administration of Silicon", Dr. D. BUCUR, Dr. A. TUDORACHE, Dr. M. RADU and Dr. C. PARASCHIV. Work performed at the Department of General Radiology of the Institute of Pathological Anatomy (Gesellschaft für Anatomie, Pathologie und Physiologie) of the Medical-Pedagogical Institute (Institutul Medicina-Pedagogica) Bucharest, Romania; pp. 123-132.
  4. "The Effects of Electrostatics from the Skin under the Working Conditions Prevalent in Coal Mine Communities", Dr. S. GHEORGHE, Candidate in Medical Sciences (Dissertation), pp. 121-143.
  5. "Hygienic and Sanitary Considerations on the Main National Banks of Soviet Regime", Dr. M. ALICSA, Dr. CRISTIAN, Dr. RADU and Dr. P. RADU. Work performed at the I.R.P. INSTITUTE OF INDUSTRIAL PUBLIC HEALTH (Institutul de Igiena si Sanatate Publica al RMN) Operational Regional Section of the Timisoara Branch (Filia Timisoara, Secția de Igienă Generală); Ministry of Finance; pp. 145-152.
  6. "Effect of Improved Hygienic Conditions on Patients' Results and Hold", Dr. J. JAHALA and Dr. P. RADU. Work performed at the Department of Thoracic Diseases (Chest Diseases) of the I.R.P. INSTITUTE OF INDUSTRIAL PUBLIC HEALTH (Institutul de Igiena si Sanatate Publica al RMN) Operational Regional Section (Secția de Bacteriologie); Prof. T. OMRIEL, Chief of Subject (ser. de Bacteriologie); pp. 153-167.
  7. "Contributions to the Study of Water Supply in Dobrogea", Dr. A. DASCSEA, Prof. A. PETREI and Dr. LUCIA AMARIEI. Work performed at Regional Sanepid (Sanepidul județului Dobrogea); pp. 169-169.
- 42 —

PRISLOPEANU,A.,dr.; MIRCEA, Zalaru; PAMBUCIAN, Gr., dr.; BREAZU, H., dr.

The determination of chloride in gastric juice as a method  
of detection of chronic gastritis (superficial and interstitial).  
Med. intern. 16 no.1:97-102 Ja'64

1. Lucrare efectuata in Spitalul nr. 1 si 2 din Ploesti, in  
colaborare cu Institutul de anatomicie patologica "V. Babes" din  
Bucuresti.

\*

RUMANIA/Farm Animals - Horses.

Q-2

Abs Jour : Ref Zhur - Biol., No 7, 1958, 30908

Author : Moldoveanu Gh., Pambucol I.

Inst : -

Title : The Study of the Development of Teeth and of Deriations from the Normal Changes Due to Age as Observed in the Trotter Horses.  
(Issledovaniye razvitiya zubov i otkloneniy ot normal'-nykh vozrastnykh izmenenii, nablyudayemykh u rysistykh loshadey).

Orig Pub : Anuarul lucrar. stiint. Inst. agron., 1957, 321-334.

Abstract : Through the study of 314 horses of different age of the Trotter breed, it was established that in 63% of cases the picture presented by the teeth corresponds to the age of the horses, as registered in the zootechnical records. 10% of the horses, judging by their teeth, appeared to be older than their actual age, and

Card 1/2

- 12 -

PAMERSKIY, Boris Dmitriyevich; MERETSKAYA, T.A., kand. ekonom. nauk,  
nauchnyy red.; PSHONIK, B.M., red.; ZIMA, Ye.G., tekhn. red.

[Local industry of the White Russian S.S.R. in the seven-year  
plan] Mestnaia promyshlennost' Belorusskoi SSR v semiletke.  
Minsk, 1962. 22 p. (Obshchestvo po rasprostraneniiu politi-  
cheskikh i nauchnykh znanii Belorusskoi SSR, no.30)  
(MIRA 15:2)

(White Russia—Industries)

PAMSTICKY, B. SLUNICKO, B.

Bickford's safety slowburning squibs. p. 204.

(Rudy. Vol. 5, no. 6, June 1957. Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

PREDA, Victor; PAMFIL, Constantin; HUSU, Elena; GRACIUN, Octaviana

Action of the chorionic gonadotrope hormone on corn development.  
Studii biol Cluj 14 no.2:201-213 '63.

1. Chair of Biology, Medicopharmaceutical Institute, Cluj, and the  
Chair of Genetics, Agricultural Institute, Cluj. 2. Corresponding  
Member of the Romanian Academy (for Preda).

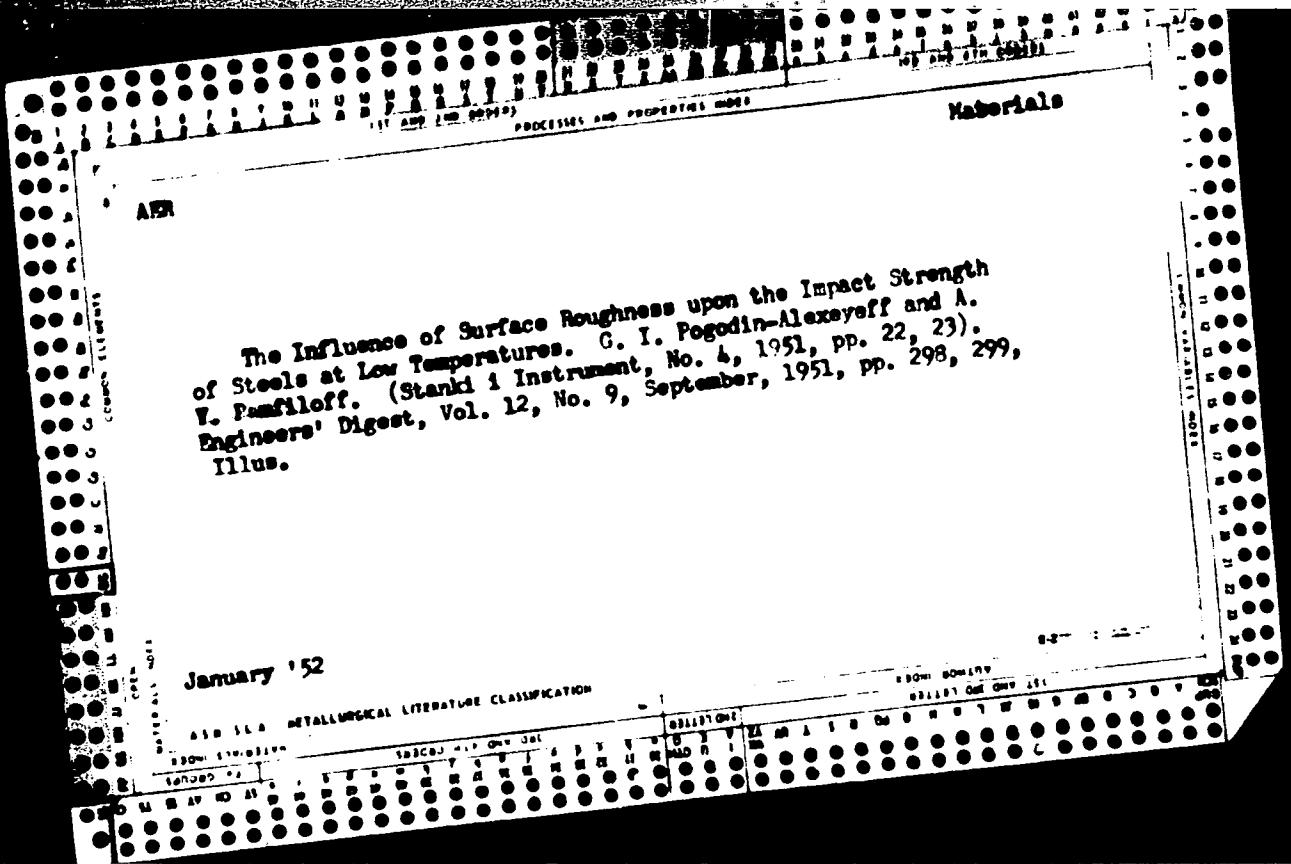
SPILIADIS, A.; BRETCANU, D.; SCHIP, Rose-Tica; MOLAU, Georgeta;  
EFTIMESCU, C.; PAMPIL, Emilia

Contributions to the study of fine dispersion conditions of azoic  
dispersion dyestuffs. Pt. 2. Rev chimie Min petr 14 no.6:336-340  
Je '63.

PAMFILOV, A.

Better utilization of potentialities. NTO 6 no. 5:12 My '64.  
(MIRA 17:8)

i. Predsedatel' Bryanskogo oblastnogo soveta Nauchno-tehnicheskikh obshchestv.



F D.

RUSSIA

1. 2

## The Influence of Surface Roughness upon the Impact Strength of Steels at Low Temperatures

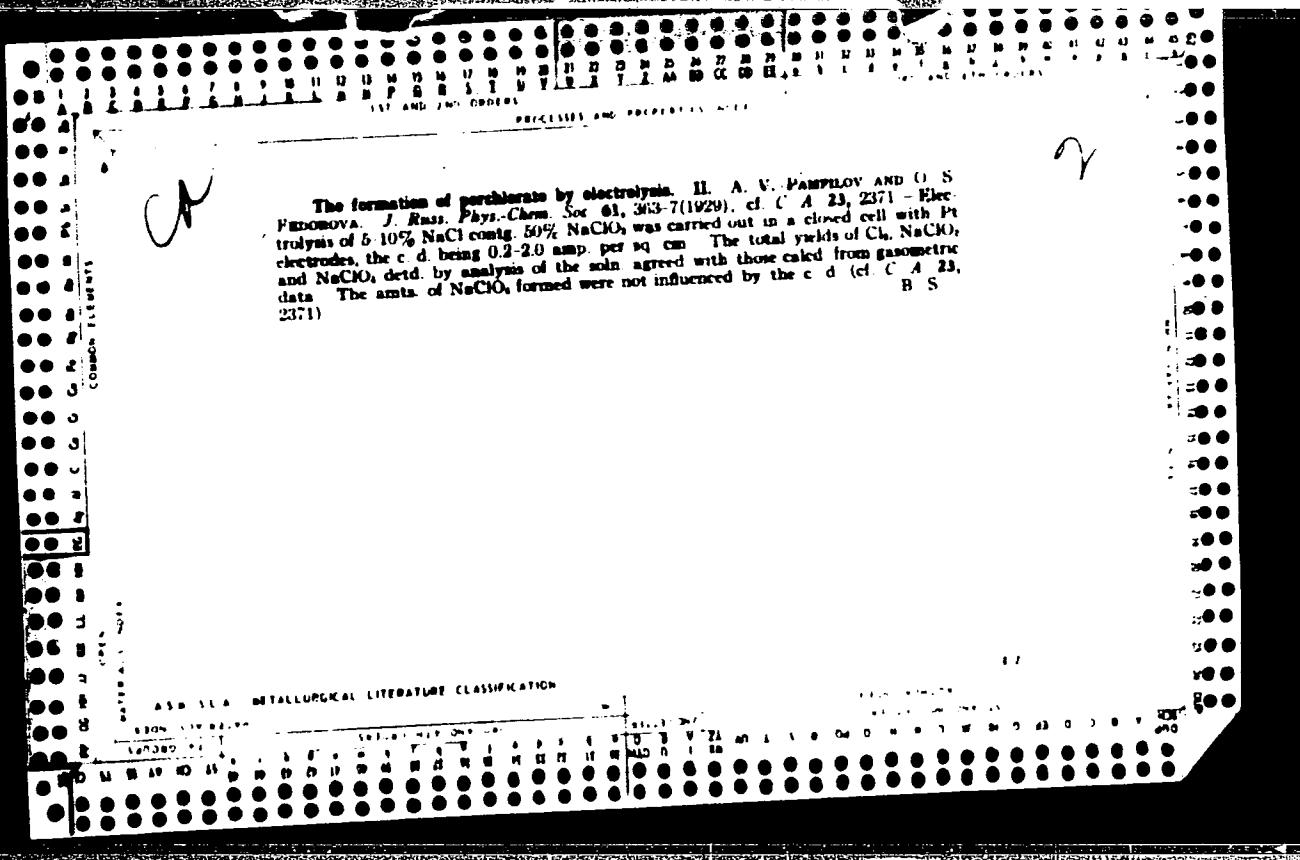
By G. I. POGODIN-ALKEREFF and A. V. PAMfilov. From *Sankt-P. Instrument*, No. 4, 1951, pp. 22-23.  
(3 illustrations.)

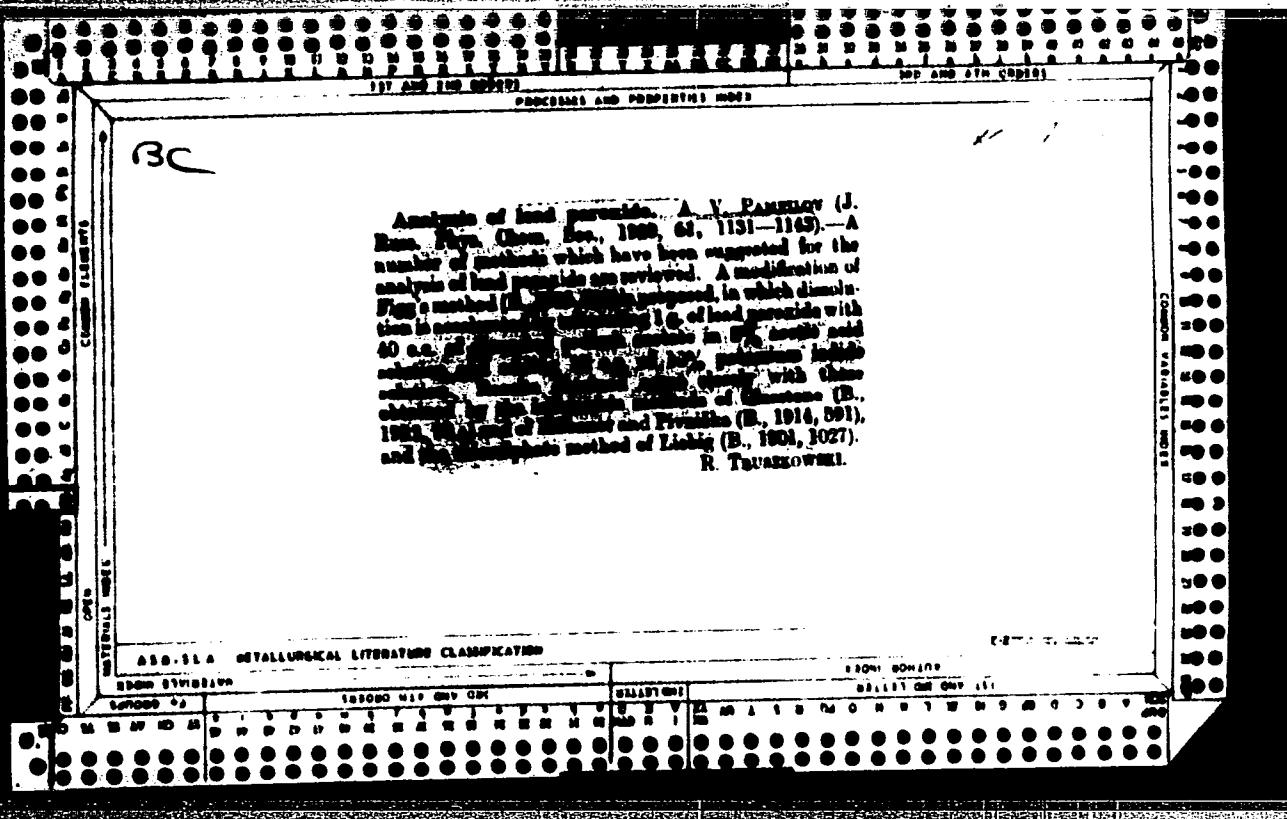
*The authors' report on investigations into the influence of surface roughness on impact strength at low and subzero temperatures. All criteria expressing toughness are compared with notched test specimens. It applies, in particular, to strength under repeated impact. This is always more extensive than that of steels than with soft steel.*

The influence of surface roughness on static and fatigue strengths has been investigated fully by N. N. Davidenkov, S. V. Sorensen and others. An improvement in surface smoothness increases the static strength as well as the endurance limit of steel. The influence of surface smoothness on impact strength has not been sufficiently examined. E. M. Shervinian has established that the condition of the surface inside the notch does not influence the critical temperature range of cold brittleness. However, the zone of plastic deformation of the test specimen following the impact usually greatly exceeds the extent of the notch, and the surface smoothness in the zone of plastic deformation, particularly in unnotched test specimens, must, in our opinion, have some influence on impact strength and the threshold of cold brittleness in steel.

The authors have investigated unnotched test specimens made of steel St 5<sup>a</sup> and steel St 31 of cylindrical shape, 8 mm in diameter and 75 mm in length, and also cylindrical test pieces of 10 mm diameter, their length being equal to that of the former specimens, but with a spherical notch extending along a length of 4 or 7 mm in the middle of the test specimen and having a depth of 2 mm (on radius). Surface machining of the test specimens was carried out to smoothness class 3, 6, and 11, in accordance with Russian standards. Furthermore, for comparison, test specimens with rough-machined surfaces having a maximum peak-to-valley height of 100-200 microns were also tested. This roughness is beyond the range of the above standard specifications and is arbitrarily denoted by zero smoothness.

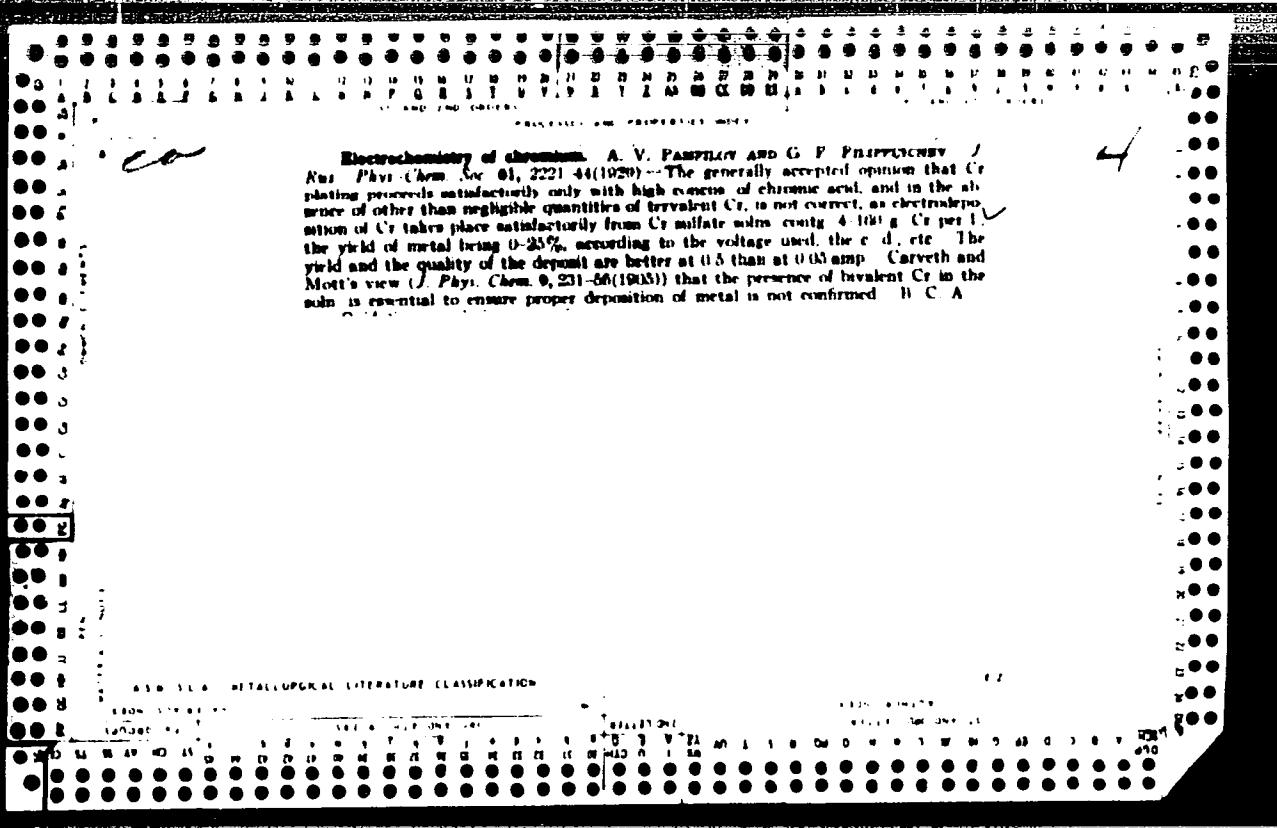
Single impact tests at room temperature, on a pendulum-type impact machine, on test specimens having a notch length of  $l_n = 4$  mm and made of steel St 5 have shown the following impact energies (mean of 10 test specimens): —

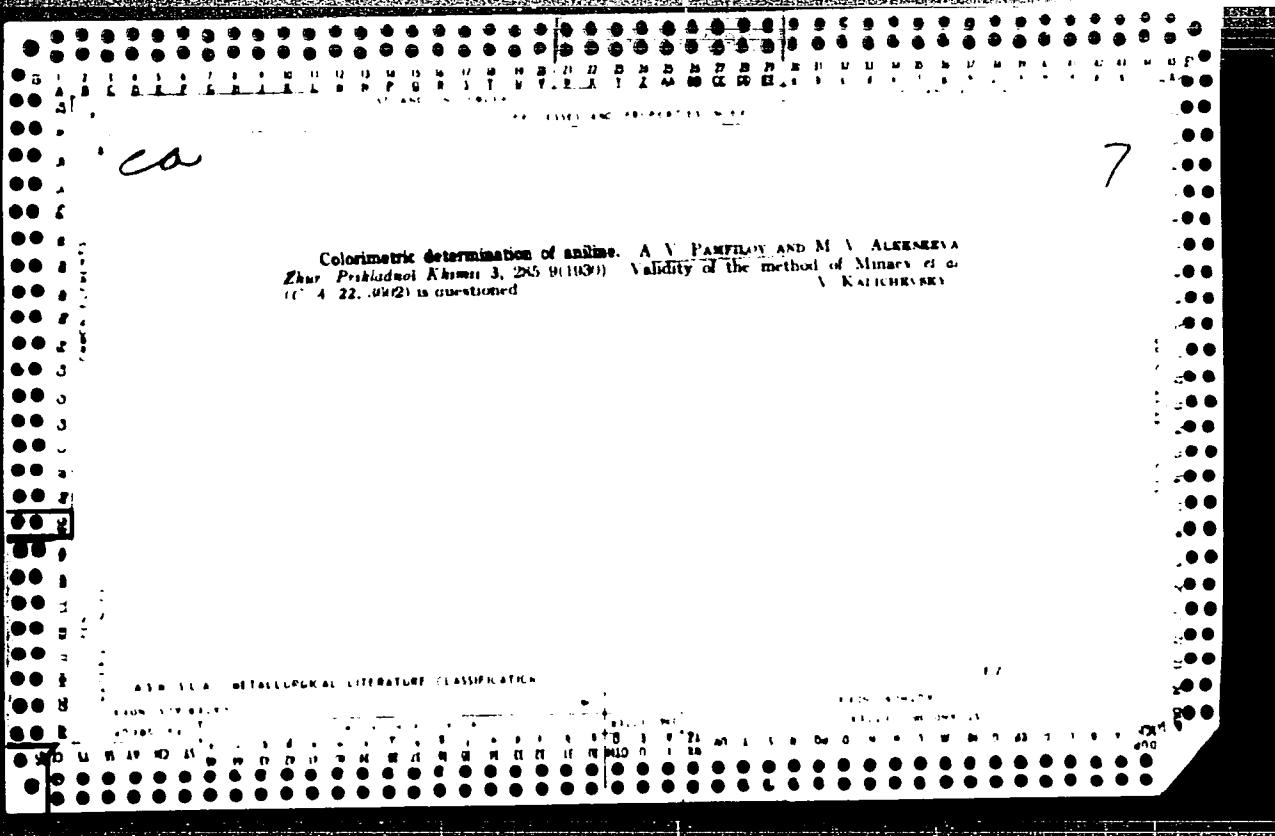


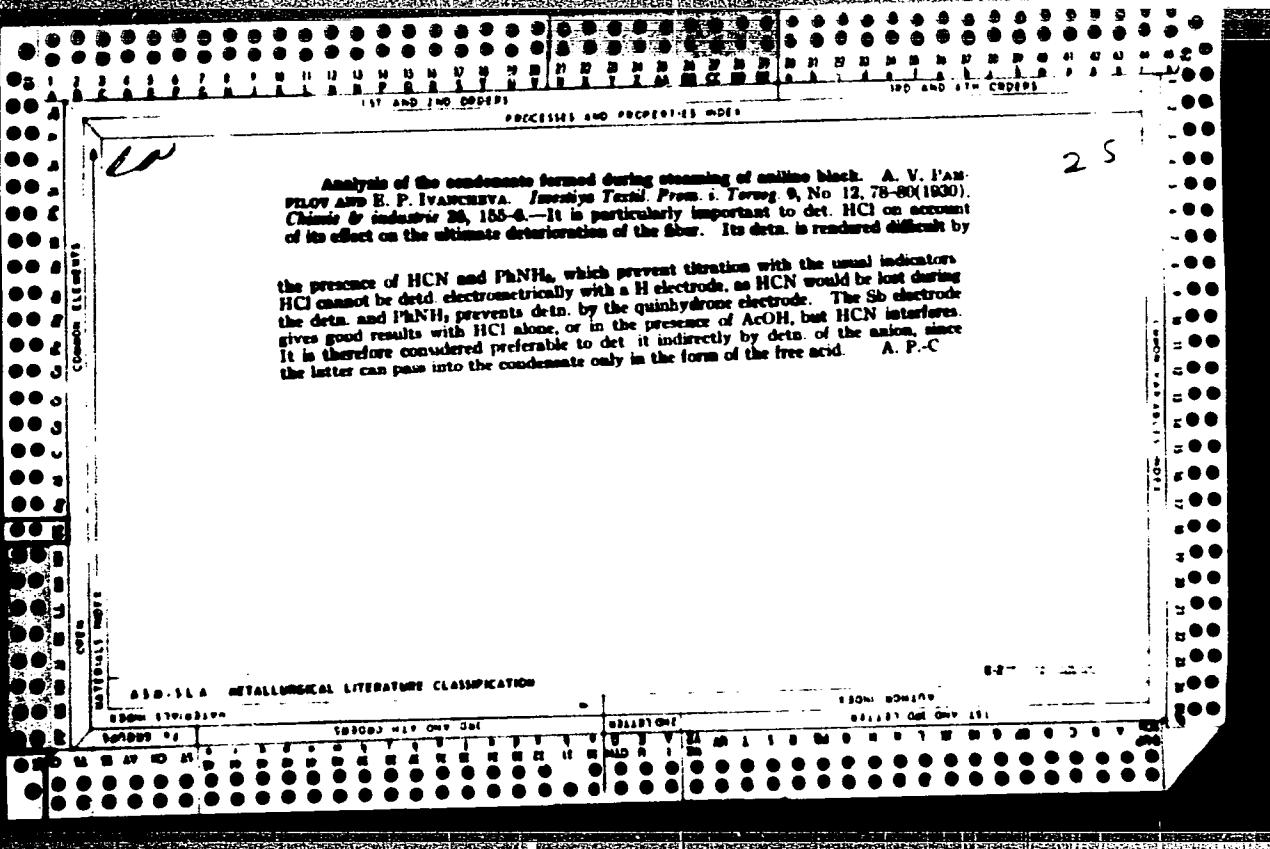


*M*

Methods of determining lead peroxide. II. A. A. PARPOV AND E. G. IVANCHY  
*J. Russ. Phys. Chem. Soc.* 61, 1907-17 (1929), cf. *J. Am. Chem. Soc.* 53, 5437. A study of the best known methods for analyzing  $\text{PbO}_2$  confirms the opinion of others that the method of Lux is not reliable as ordinarily carried out. Dissolving the sample in the presence of excess  $\text{Fe}$  and titrating the excess with  $\text{K}_2\text{Cr}_2\text{O}_7$  is the most reliable method known. W. T. H.







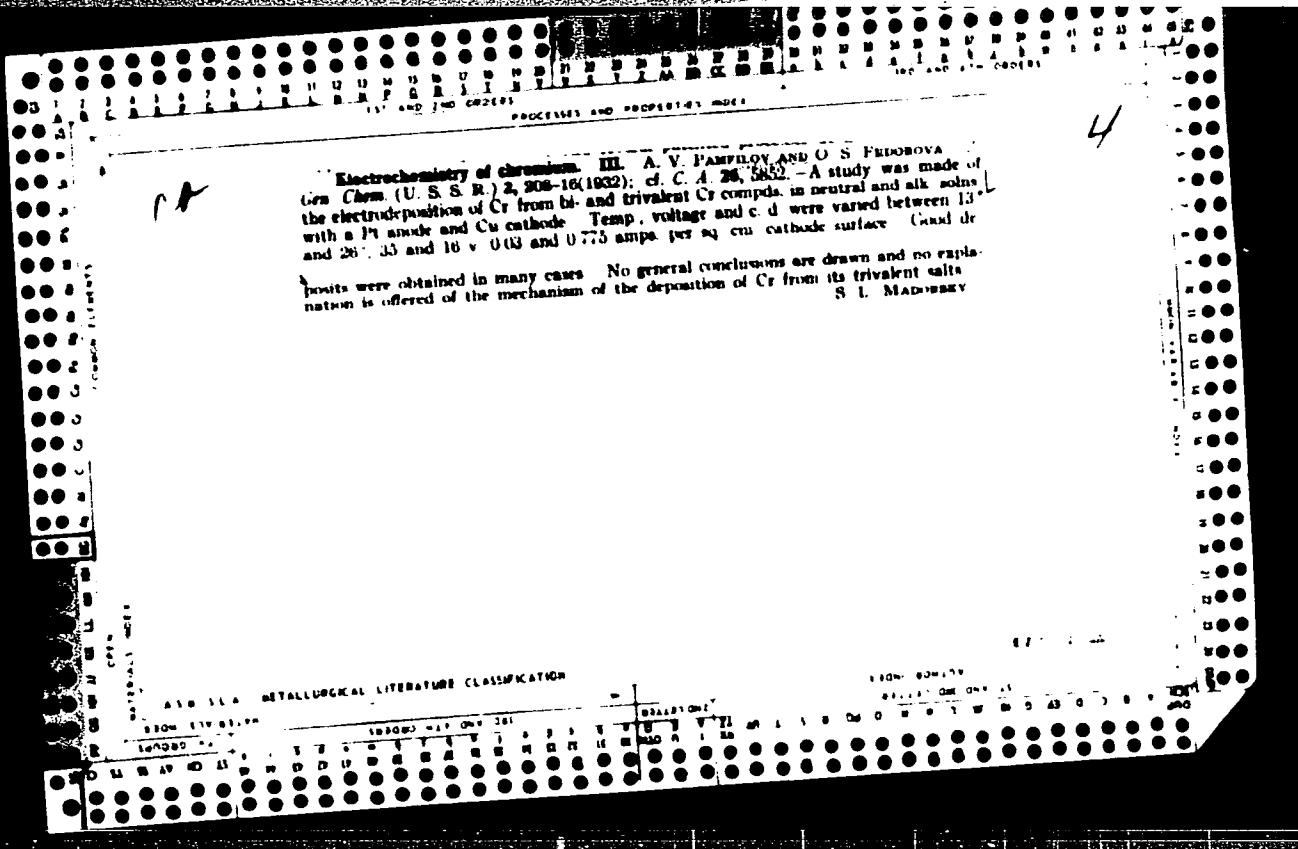
(W) 11

Determination of lead as peroxide. III. A. V. PAMfilov AND RIZARKH G. IVANCHEVA. *J. Gen. Chem. (U.S.S.R.)* 1, 700 (1931). *Z. anal. Chem.* 88, 23 (1932); *ibid. C. J.* 26, 1026. A crit. study of methods previously proposed shows that the bromometric method is convenient and satisfactory. It gives values which are comparable with those obtained by the more expensive iodometric method used in the U. S. To 0.5 g. of red lead, or 0.1 g. of PbO<sub>2</sub>, add 20 cc. of a standard, neutral soln. of As<sub>2</sub>S<sub>3</sub> and 10 cc. of 20% HCl. Boil till the PbO<sub>2</sub> is all dissolved, dil. to 50 cc., and titrate with NaBrO<sub>3</sub> at 30°. Good results are also obtained with indigo carmine or methyl orange as indicators. Take 0.1-0.2 g. of PbO<sub>2</sub>, or 0.8 g. of red lead, add 20 cc. of neutral As<sub>2</sub>S<sub>3</sub> soln. and 10 cc. of 20% HCl. With PbO<sub>2</sub> the sample dissolves in the cold, but red lead requires 15 min boiling. Add water and titrate as above. The end point can be detd. potentiometrically if desired. W. T. H.

CA

The electrochemistry of chromium. II. A. V. PAVLOV, V. V. GORIKA AND A. A. TURINOVAYA. J. Russ. Chem. (U. S. S. R.) 1, 803 (1931). cf. CA 26, 2837  
A study of the plating of Cr from chloride salts was carried out. Experiments were made with a double diaphragm in order to decrease the influence of products on the anode. The data found in this and in the previous article indicate that metallic Cr is obtained upon the electrolysis of solutions of Cr sulfates and chlorides. - B. G. Kowarschik

AMERICAN METALLURGICAL LITERATURE CLASSIFICATION

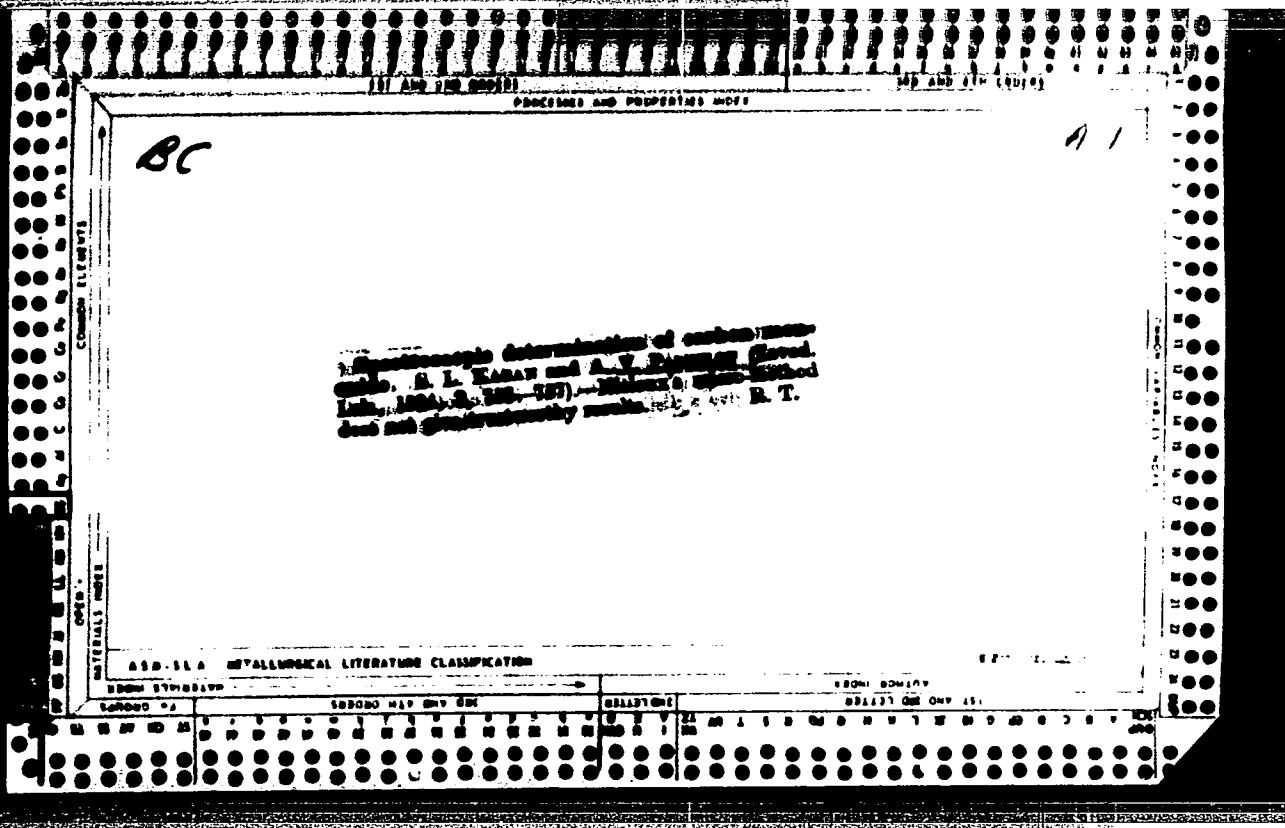


Methods for determining lead peroxide. V. A. V.  
Panfilov and R. G. Ivancheva. / Sov. Chem. Ind. No. 1  
RTT 3, 202 (1960). et C. A. 60, 1331. The most  
convenient and sufficiently accurate method was found  
to be the following. Digest PbO<sub>2</sub> or Pb<sub>3</sub>O<sub>4</sub> with 2 cc. of  
HNO<sub>3</sub> (d. 1.2), add 75 cc. H<sub>2</sub>O and 5-10 cc. of standard  
1.2% KMnO<sub>4</sub> and titrate the excess H<sub>2</sub>O<sub>4</sub> with KMnO<sub>4</sub>  
of Rhell. Chem. Ztg. 10, Repet. No. 10, 70 (1886).  
Busvold, C. A. 26, 2140. Chas. Blanc.

APPENDIX A METALLURGICAL LITERATURE CLASSIFICATION

"APPROVED FOR RELEASE: 06/15/2000

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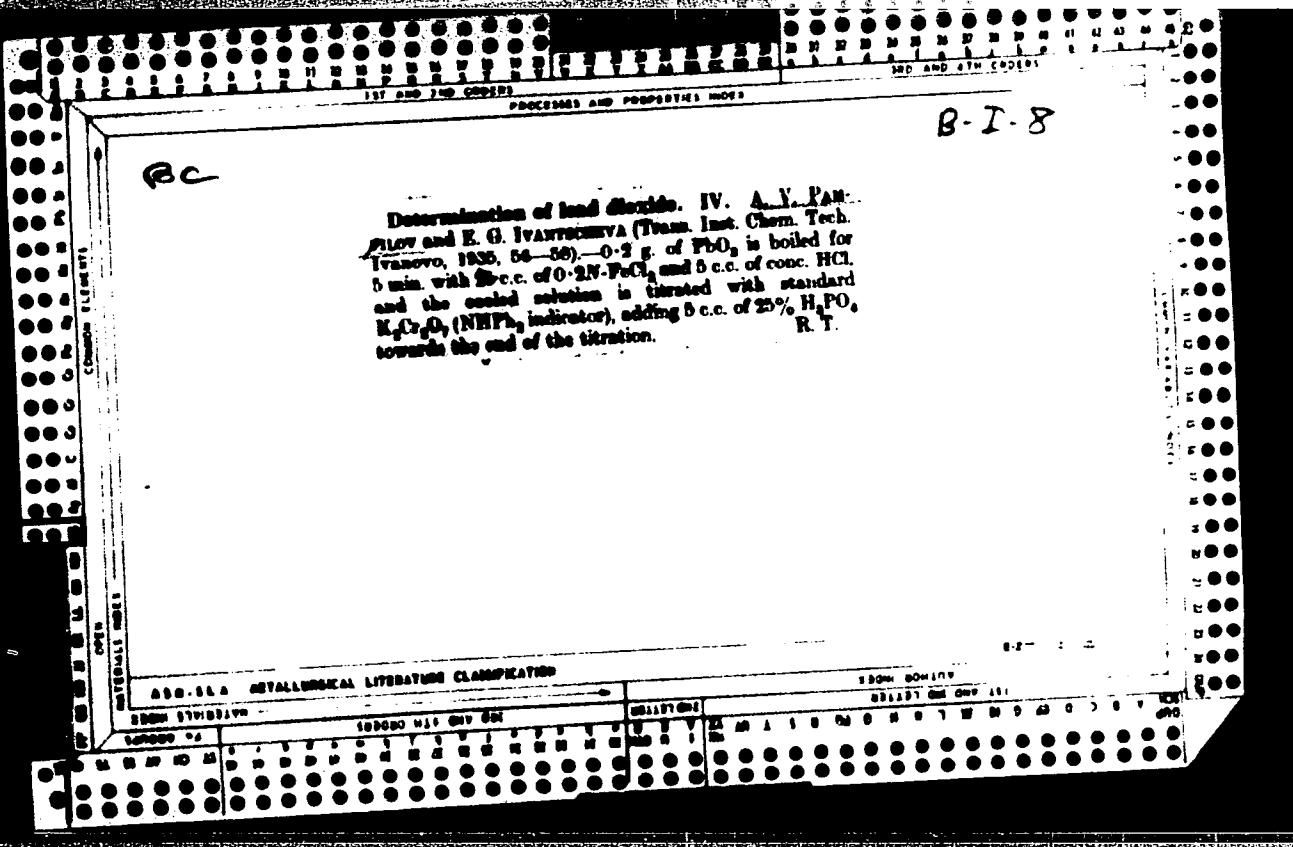
CA

Methods for determining low concentrations VIII  
Determination of carbon monoxide A. V. Landolt  
and S. L. Kagin, J. Am. Chem. Soc. 53, 988-994  
(1931); J. Lab. and Wagner, Anal. 20, 31-37. Method  
ordinarily used for the determination of small amounts of CO gave  
results varying within wide limits. In analyzing samples  
of air containing 0.0461 to 0.0773 mg. CO per liter, by oxidation  
with CuO at 250-260°, the results varied from 33.6% to  
77.68% of the CO contained. In another series of determinations,  
where content of CO was 0.077 to 0.097 mg./l., the results  
were 122.70 to 135.88% of the amount contained. Similarly  
the oxidation with HgO and HgS gave irregular results.  
A. V. Landolt

AMERICAN METALLURGICAL LITERATURE CLASSIFICATION

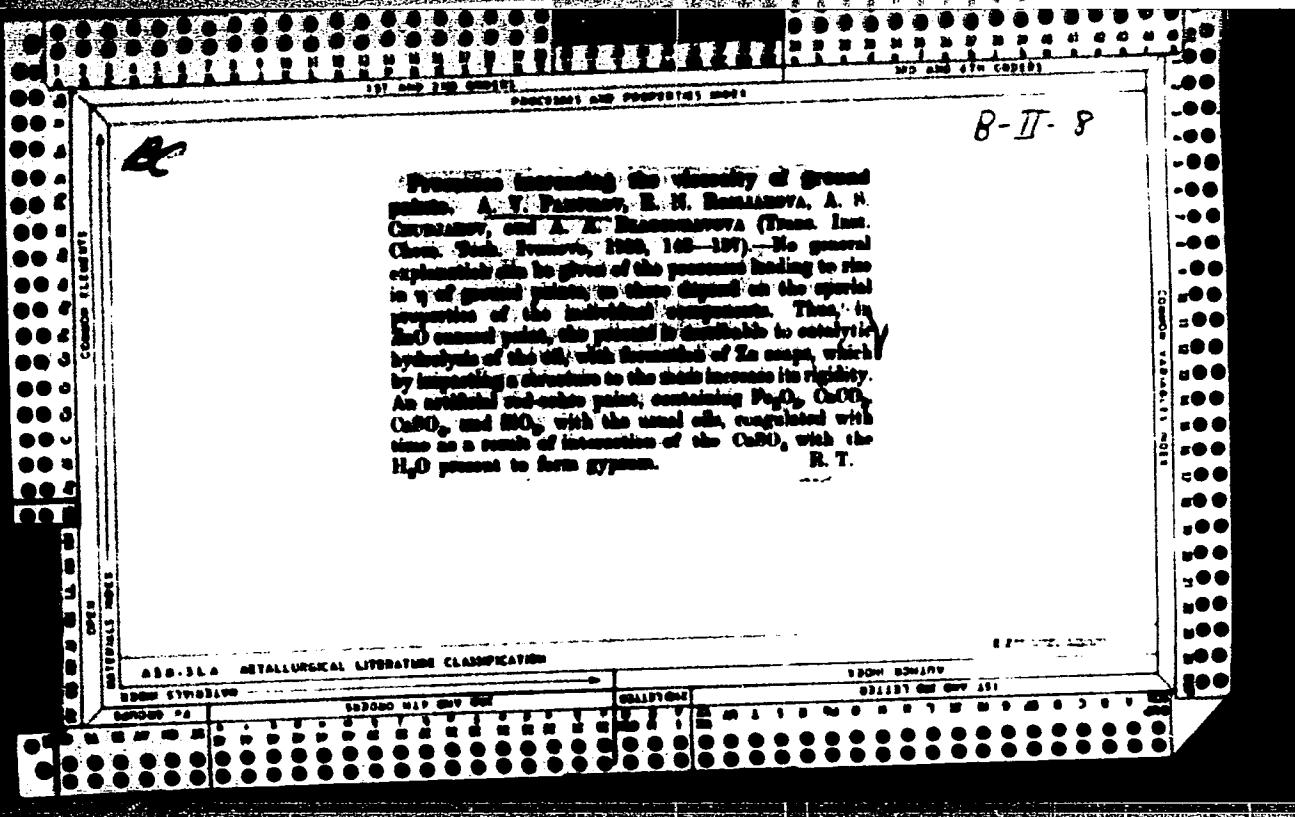
4  
REVIEWED AND APPROVED FOR RELEASE  
BY THE CIO AND THE DDCI  
**Voltiochemical extraction of lead compounds from the**  
ore. A. V. Tsvetkov and O. N. Kiperov. *J. Applied  
Chem.* (U.S.S.R.), 7, 916-20 (1964). In a horizontal  
arrangement of the electrodes the anode is a layer of  
PbS (1.5-2 cm.), with an inner metallic grid contact  
With a 10% soln. of NaClO<sub>4</sub> and 3% HClO<sub>4</sub>, a c. d. of 50  
amp./sq. m. at 3 v. and a temp. of 12°, Pb is evolved

and shiny Pb crystals are deposited on the cathode.  
Upon increasing the c. d. 10-fold, whereby the voltage  
increases to 5 v., a spongy Pb deposit on the cathode is  
obtained. With a concentrate from the Sandomil deposit  
contg. Pb 77.4, Zn 2.1, Fe 2, Cu 0.6, S 15 and insol  
matter 17%, with a c. d. of 150 amp./sq. m. and a voltage  
of 5.5 v., needle-shaped Pb is ptd. on the anode. Sponge  
Pb sets in at a c. d. of 1,000 amp./sq. m., and the voltage  
reaches 30 v. This makes prolonged electrolysis im-  
possible. With an anode d. of 2,000 amp./sq. m. at  
4.5-5 v., an electrolyte contg. 25% NaClO<sub>4</sub> and 5%  
HClO<sub>4</sub>, about 32.1% of Pb was ptd. By electrolyzing,  
keeping cathodic and anodic products sep. and using a  
NaCl soln. and ore concentrates, with a c. d. 1000 amp./  
sq. m. and temp. (8-10)°, the Pb current efficiency is  
95%. The PbCl<sub>4</sub> formed during the process is recovered  
with hot H<sub>2</sub>O and can subsequently be ptd. out of solution  
upon cooling. The Pb produced was used for paints and  
enamels. A. A. Buchinsk

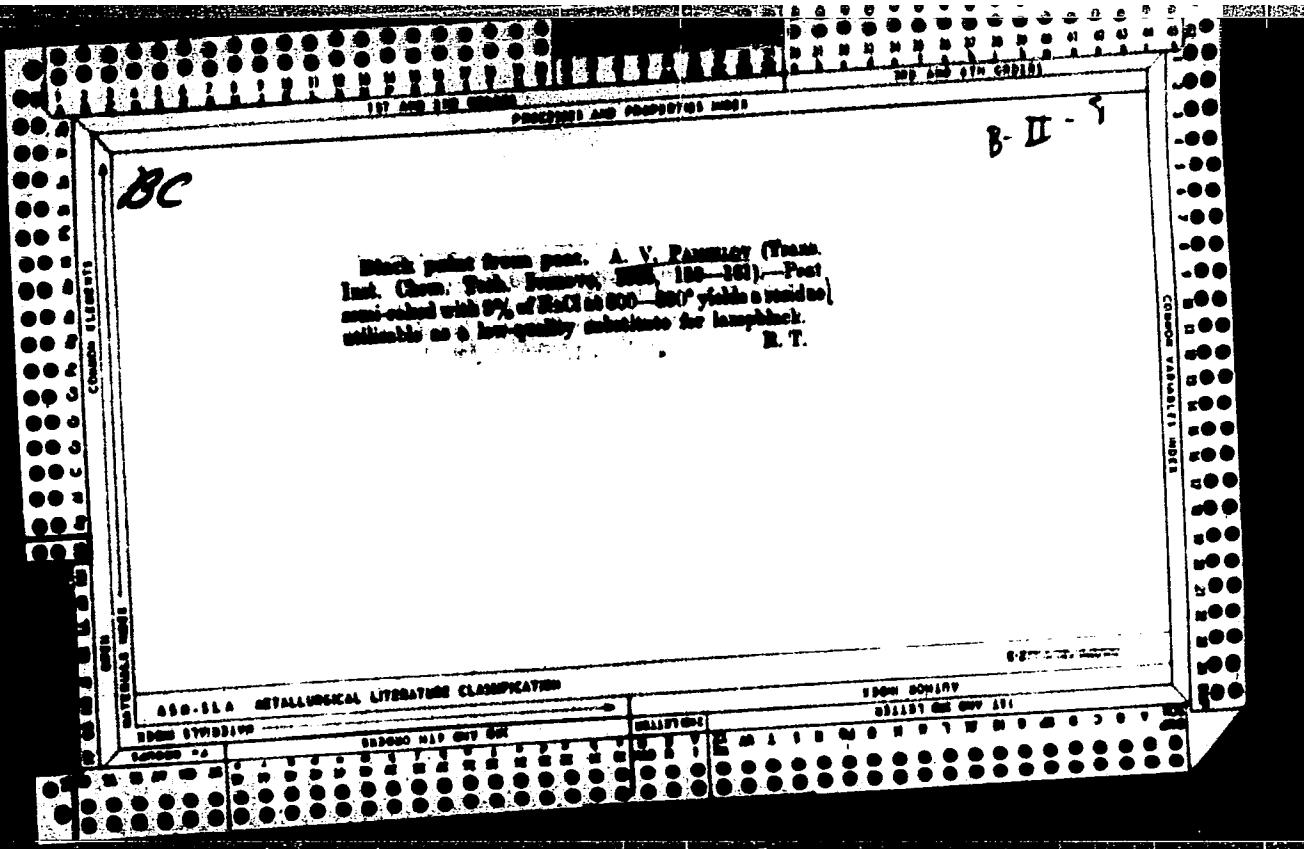


Reduction of linseed oil consumption in the production  
of linoleum. A. V. Pamfilov and K. O. Ivancheva. Trans.  
v Inst. Chem. Tech. No. 467 (U.S.S.R.) 1, 130-42 (1935).  
Formulas are given for the substitution of 50% of Ca salts  
of naphthenic acids for linseed oil in the production of  
oilcloth Chas. Blanc

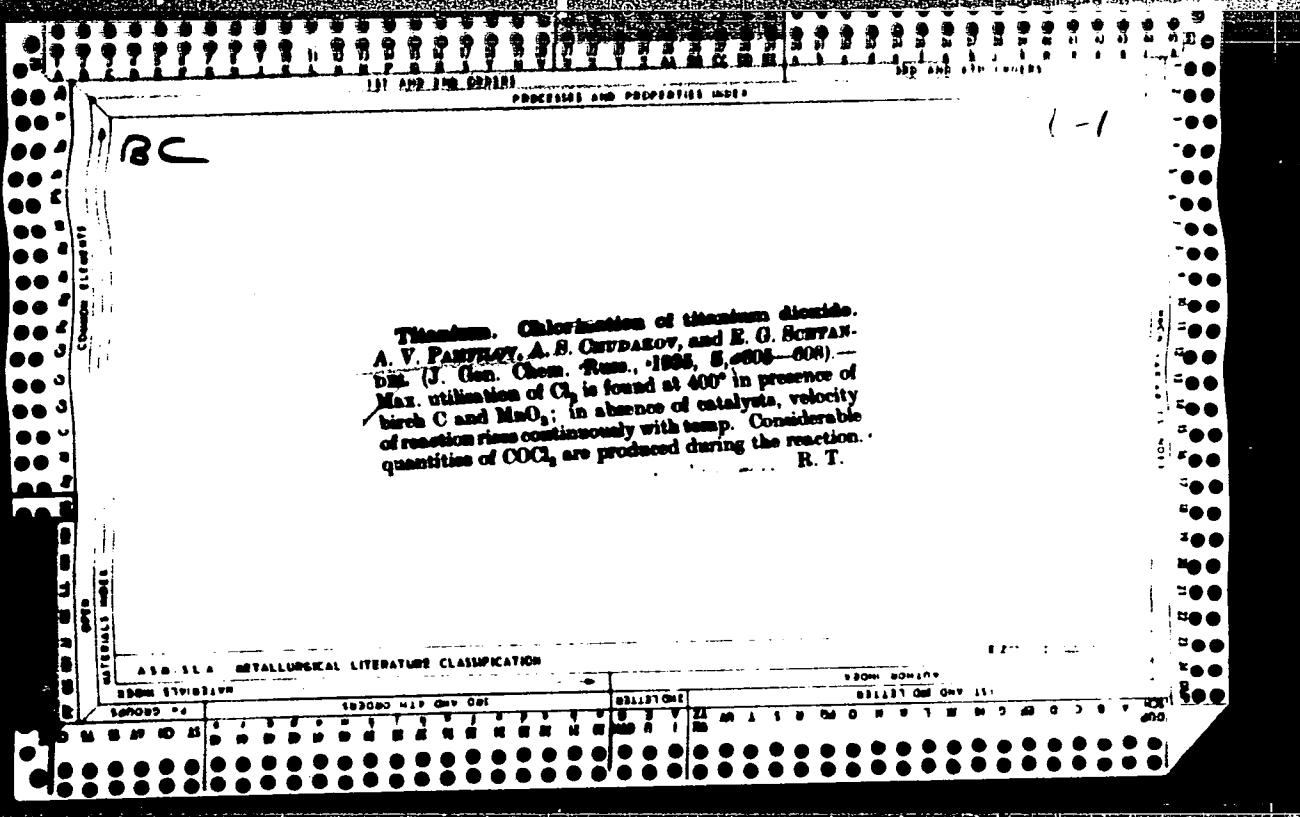
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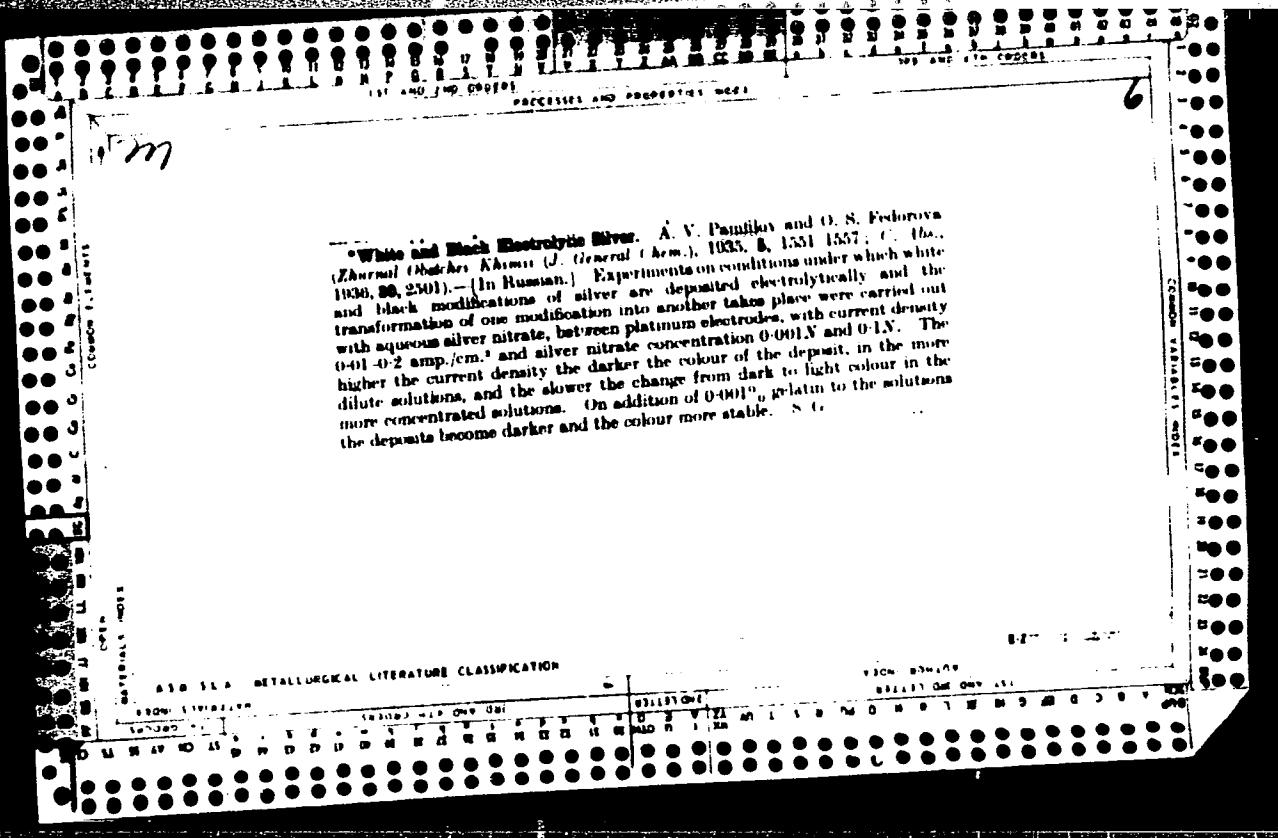


Processes of impregnation of mixtures of pigments in oil. A. V. Panchuk, E. N. Rul'yakova, A. S. Khudyakov and A. T. Blagonravova. *Trans. Inst. Chem. Tech. Reservoir (U. S. S. R.)* 1, 143-57 (1935). The processes of thickening (levering) of oil-pigment mixts. are highly complex and are, probably, produced by many causes. Iamin of mixts. of ZnO-infused oil disclosed the inadequacy of the conception of levering as a result of the formation of a metallic soap proposed by Fischer. *Chem. Blanche* A 20, 5210. The process of soap formation proceeds very slowly and depends not on the reaction of a metallic base with a free acid constituent of the oil but on the decompso of the glyceride.

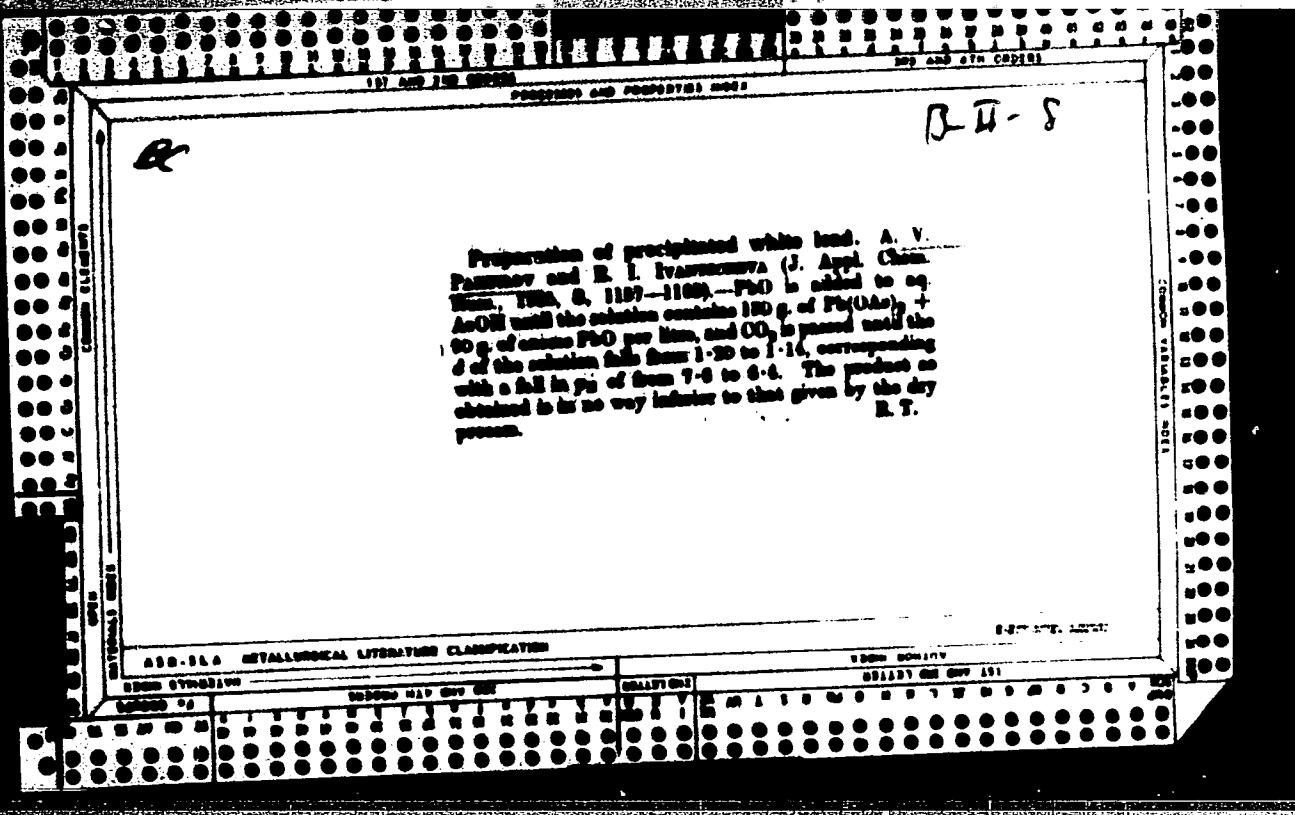


The degree of dispersion of charcoal black K. F. Krause, A. V. Panchikov and E. N. Rodnyakova J. Gen. Chem. (U. S. S. R.) 5, 438-43 (1935). Two samples of gas black of American origin yielded stable and relatively fine dispersions in crude  $\text{PbNO}_3 \cdot \text{HNO}_3$  was one of the impurities that acted as stabilizers. The suspensions, as viewed through a microscope, were multidisperse, hence they contained aggregates of the very small (probably ultramicroscopic) primary particles. Attempts to obtain finer suspensions in other media (org. solvents, tannin solns., Canada balsam, etc.) failed. Charcoal black from other sources ("Torföl," 3 Russian samples) gave coarser suspensions. Heating the samples to 40° did not, as a rule, change their subsequent behavior toward the dispersion media. Microscopic studies of charcoal-black suspensions therefore do not disclose the size of the primary particles. B. Savenkov





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RECEIVED AND PROCESSED 04.08.61  
b.e  
Absorption spectra of tellurite solutions. J.  
Solutions in mineral acids. A. V. PARYTLOV and  
R. V. TIAN [J. Russ. Chem. Soc., 1933, 6, 1002].  
The absorption spectra of I. in eq. HCl or  
 $H_2SO_4$ , are of the same type as in eq. solvents.  
R. T.



*Car*

27

Determination of the elasticity of leather dye coatings  
A. N. Panfilov and E. N. Rodyakova. Org. Chem. Ind.  
(U.S.S.R.) 1, 621 (1936). The relative elasticity of  
a certain dye compn. for shoe leather is tested by applying  
3 or more layers of the compn. on a rubber strip, drying  
the sample in a desiccator over  $H_2SO_4$ , at 35° for 15 min.,  
and stretching it in the Smirnov dynamometer (C. A. 29,  
50784) until the 1st appearance of a crack in the coating  
observed with the aid of a magnifying glass (cf. J. AP-  
plied Chem. U. S. S. R.) in print. Chas. Blanc

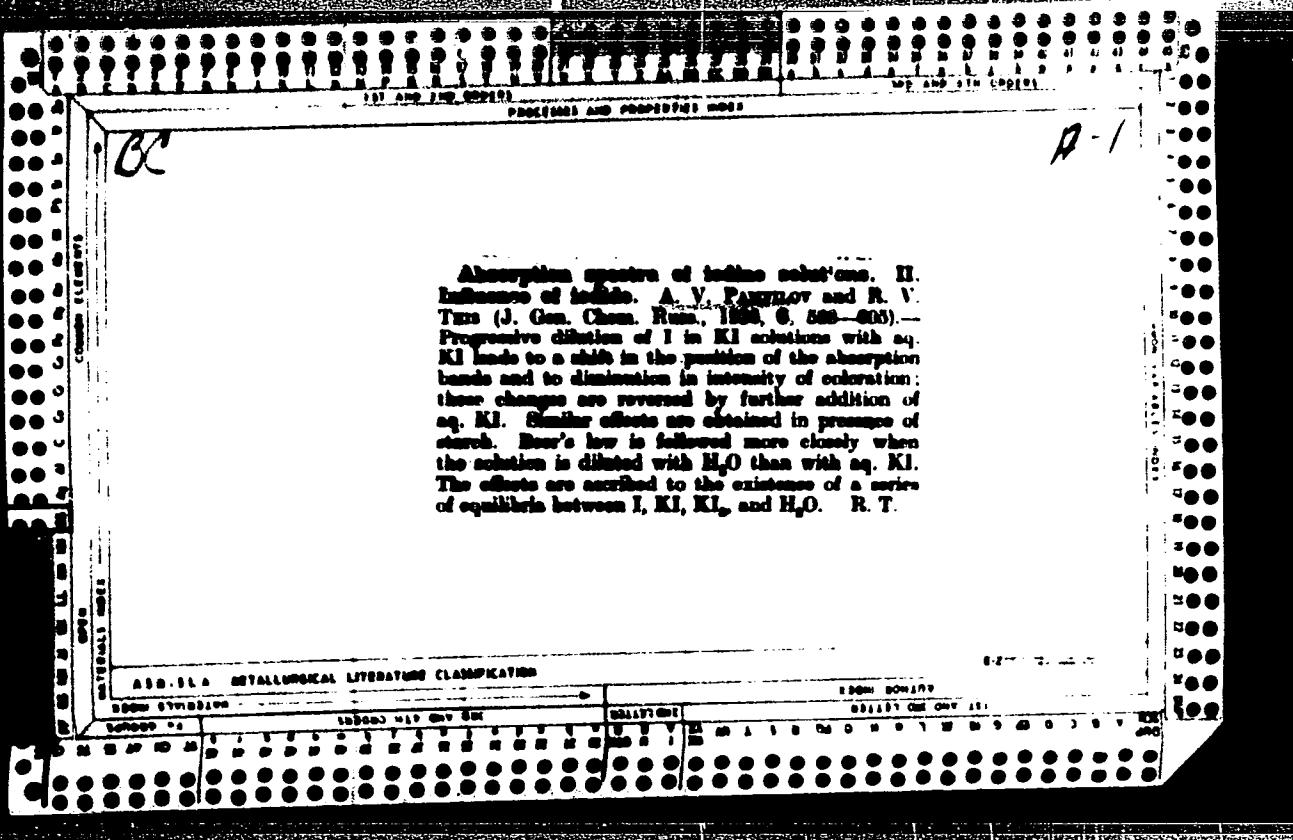
ABE-51A METALLURGICAL LITERATURE CLASSIFICATION

CP

Morphology of pigments. Adsorptive capacities and activation of lampblack and soots A. V. Pamfilov and N. N. Rodyakova Colloid J. (U.S.S.R.) 197 92 (1966). -Neutral red is proposed as more satisfactory dye than methylene blue for the determination of the adsorptive capacities of substances by the colorimetric method. Data are given for a no. of lampblocks thermally treated at from 400° to 900° in air or in N<sub>2</sub>. In some cases an treatment at 900° quadruples the activity given by treatment at 400°, but in other cases very little difference is observed. N<sub>2</sub> treatment at 400° gives approx. twice as active a product as is obtained at 400°. The relative effects of 400° and 600° treatment vary greatly from one block to another F. H. Rathmann

ca  
6

The chemistry of titanium III. Decomposition of titaniferous magnetite concentrate with hydrochloric acid. A. V. Pamfilov and E. G. Shtandel. *J. Gen. Chem. U.S.S.R.* 6, 300-4 (1936); cf. *C. A.* 30, 2672. HCl readily effects almost quant. extn. of Fe from titaniferous magnetite. With samples of Kusinsk ore, contg. 42.7% TiO<sub>2</sub> and 30.2% Fe, the influence of the following factors on the extn. process were studied: mech. size (4800-10,000 mesh), ratio of acid to concentrate (50, 75, 100, 125 and 150 ml. per 10 g. concentrate), concn. of acid (5, 10, 15 and 20% HCl), temp. (18-21°, 95°K and at the boiling temp. of the reaction mixture (110-120°)); time -0.5 to 24 hrs. The highest extn. (98.2%) of the Fe present was obtained by using 100 ml. of 20% HCl per 10 g. of finely pulverized concentrate and heating with stirring at the boiling temp. for 24 hrs., 6 hrs heating结束后, 97.0%. The residue is chlorinated at 90-95°K to yield Ti chloride. 1.1vah



Morphology of pigments. IV. Microscopy of carbon black. A. V. Pamfilov and O. S. Fedorova. *J. Gen. Chem. (U.S.S.R.)* 6, 645-9 (1936); cf. *C. A.* 20, 53271; 30, 58179. While microscopic examn. of charcoal black makes it possible to distinguish gas black from other forms of C black according to the character of distribution in rubber, it is impossible to distinguish various grades of gas black and lampblack from one another. Methods of sample prep. and examn. are described. C. B.

CHLORINATION OF IRONIC OXIDE IN PRESENCE OF CARBON  
A. Panfilov and V. Suturin. J. Russ. Phys.  
Chem. Soc., 1839-40(1836) - Chlorination of FeO (Kekulé's  
report) in presence of about 25% carbon black at 700°  
and 1100° with chlorine at 700° (7.94% yield) and 1100°  
(9.50% yield). Chlorination of iron oxide is  
more difficult than chlorination of iron. Chlorination  
of chlorides with greater difficulty. Chlorination of  
chlorides complete at 400° and 600°, resp.

V. V. Kukharchuk

ASHRAE METALLURGICAL LITERATURE CLASSIFICATION

CH

3

Casein solutions. A. V. Pashkov and R. N. Roslyakov. Applied Chem. (U. S. S. R.) 6, 1684-73 (in German 1974) (1980). - The optimal cipients of solvents for stable casein solns. are: NaOH 4, 35% NH<sub>4</sub>OH 10, and Na<sub>2</sub>CO<sub>3</sub> 20% by wt. of air-dry casein. NaOH is the best and Na<sub>2</sub>B<sub>4</sub>O<sub>7</sub>.10H<sub>2</sub>O is the poorest solvent. A mixed solvent prep'd. from Na<sub>2</sub>B<sub>4</sub>O<sub>7</sub>.10H<sub>2</sub>O (15%) and Na<sub>2</sub>CO<sub>3</sub> (5%) gives a more stable casein soln. than that obtained in the pure solvent. A casein with higher acidity, which does not produce viscous solns., after treatment with water at 100-120° for 0.5-1 hr., yielded good viscous solns. A normal casein, hydrolyzed in such a manner, gives a better digest. than unhydrolyzed casein. Exptl. data are tabulated, and results are discussed. Twelve references. A. A. Podgorny

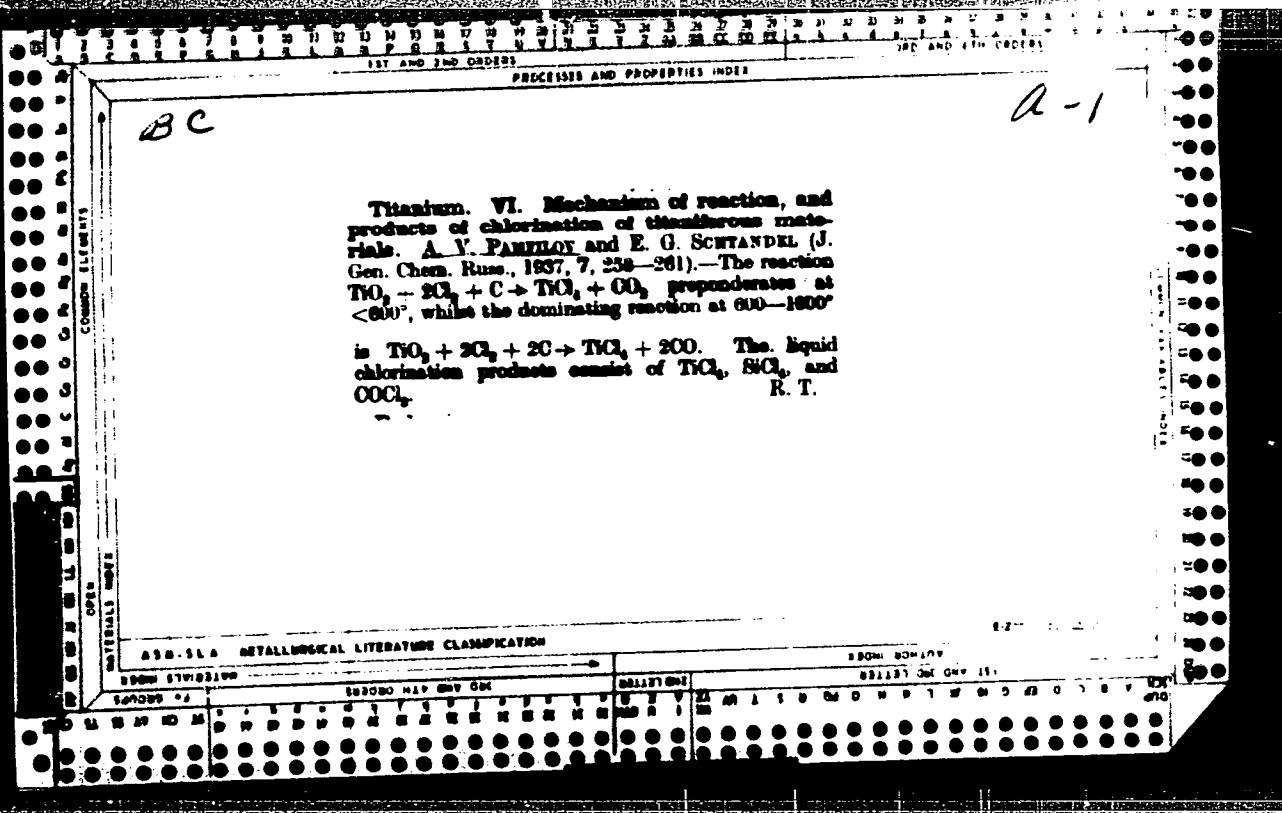
ASA SCA - DETAILLED LITERATURE CLASSIFICATION

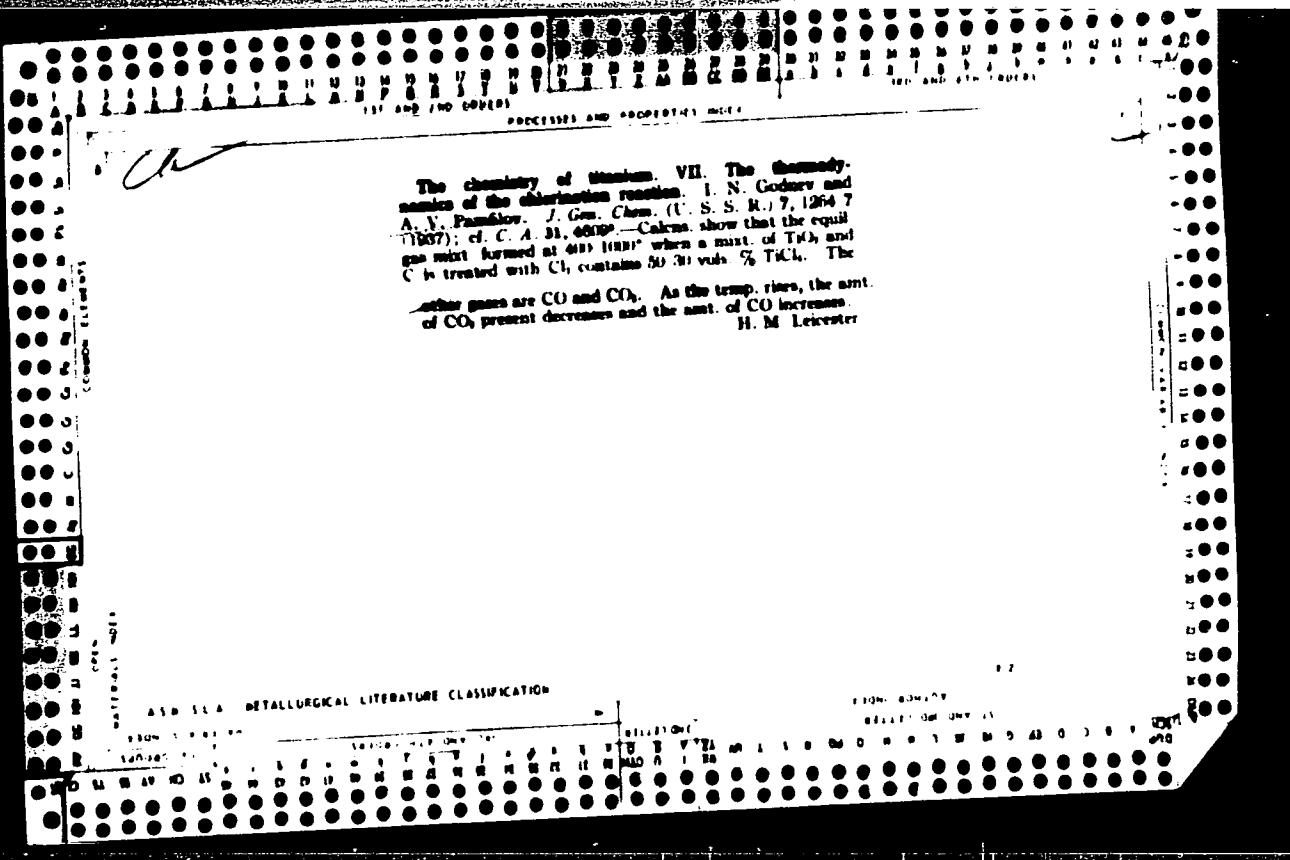
E 2

Chemistry of Titanium. IV. Chlorination of titanomagnetic concentrate. A. V. Panfilov and N. G. Shatunova. *J. Applied Chem. (U.S.S.R.)* 17(10):1817-1820 (1964). C. A. 47, 18175. Titanomagnetic concentrate, obtained from the "Lakobraka No. 1" plant, and contg. TiO<sub>2</sub> 48.0%, FeO 31.61, Fe<sub>2</sub>O<sub>3</sub> 10.63, SiO<sub>2</sub> 1.64, Cr<sub>2</sub>O<sub>3</sub> 0.03, MnO 0.72, CuO 0.00, MgO 2.70, P<sub>2</sub>O<sub>5</sub> 0.13 and H<sub>2</sub>O 0.16% was chlorinated in a porcelain tube in the presence of solid C, with Cl<sub>2</sub> velocity of 3.1 hr<sup>-1</sup>, for 6 hrs. at 600 °C, with a yield of about 98%. A powder concentrate and briquettes of various sizes prep'd from this concentrate were used. The optimal temp. of chlorination of TiO<sub>2</sub> alone in the presence of MnO<sub>2</sub> catalyst was 450-465°, and above 500° without a catalyst, with a yield of about 90% of the product. Six references. V. Chlorination of sphene

concentrate. *Ibid.* 17(1), 1781-89.—A sphene concentrate, obtained from the above plant, and contg. SiO<sub>2</sub> 26.82, TiO<sub>2</sub> 25.42, CaO 28.45, FeO 1.32, Fe<sub>2</sub>O<sub>3</sub> 2.08, MnO 1.29, MnO<sub>2</sub> 0.13, P<sub>2</sub>O<sub>5</sub> 7.18 and H<sub>2</sub>O 0.14%, was chlorinated at 200-250°. The best chlorination temp. was 800-900°. In general, the chlorination of the sphene concentrate is much more difficult than that of titanomagnetic concentrate. The Cl<sub>2</sub> distribution among the components of the concentrate was not favorable, yielding CaCl<sub>2</sub> most rapidly; however, Ti was almost completely sepd from the sphene concentrate. One reference. A. A. Podgorny

Morphology of pigments. VI. Oxidation of crystal line modification of lead oxide. A. V. Pashkov, E. G. Ivancheva and A. A. Petrush. J. APN67 Chem. U.S.S.R. v. 9, 2020 (Sum French 2038) Publ. of C. I. 30, 7280. The velocity of oxidation of Pb oxide at tetragonal form is greater than that of rhomboic. A preliminary baking of Pb oxide slows down its oxidation, but a mech. treatment accelerates the oxidation, possibly by cause of the change of the character of the surface. To obtain an easily oxidizable and structurally homogeneous Pb oxide in the mechanized plant equipment, it is recommended to warm the pptg. system to a temp. corresponding to that of the formation of tetragonal crystals of Pb oxide. — See references. A. A. Petrush.





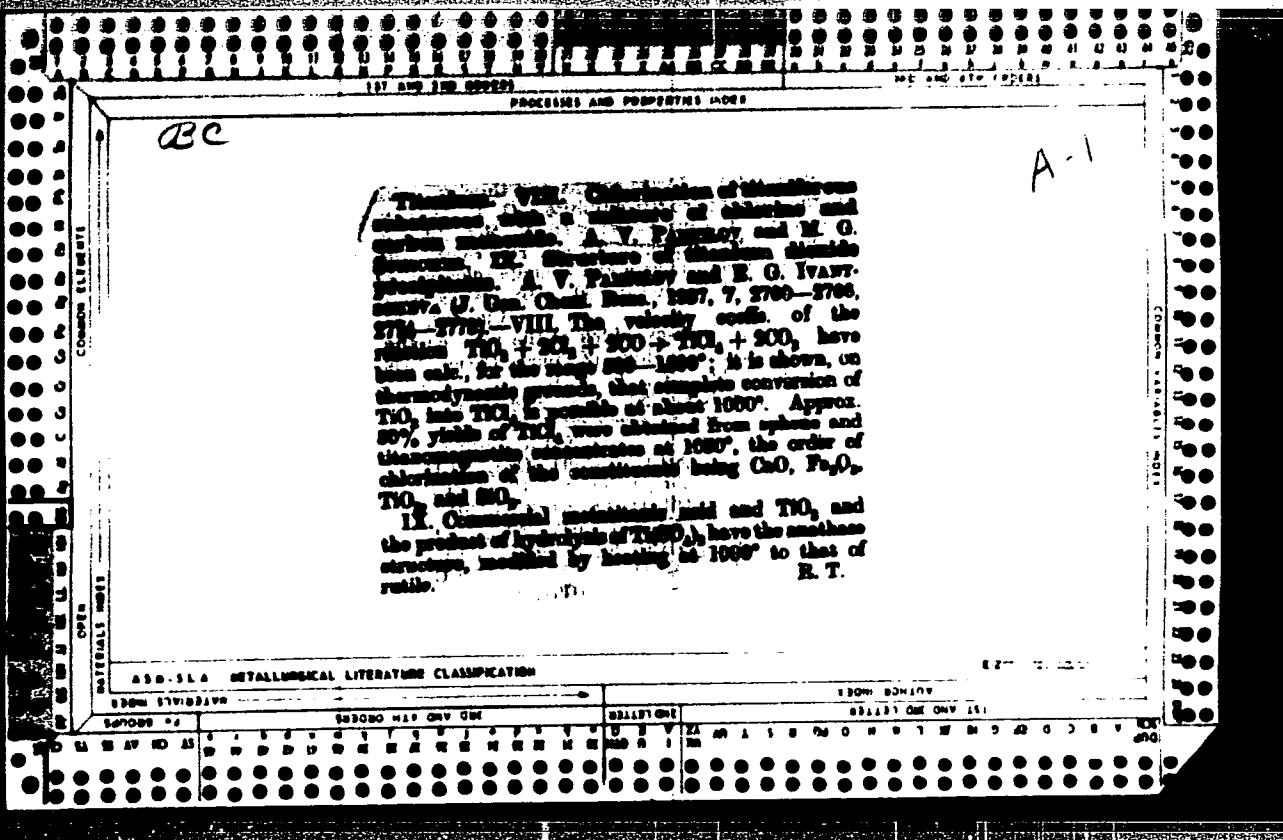
The theory of change of viscosity of nitrocellulose solutions A. A. Morozov and A. V. Ponomaryov, J. Russ. Chem. Soc. S. S. R.) 7, 2154 (1911). The total and structure viscosity of 3 samples of acetone solns of nitrocellulose contg 10.4, 12.1 and 13.2% N were studied. Structure viscosity (elasticity) was characteristic of those solns that do not obey Poiseuille's equation, and is due to the internal structure of the system. By total viscosity is meant the sum of true viscosity and structure viscosity in such solns. It was found that those solns of nitrocellulose in acetone that do not obey Poiseuille's equation undergo a lowering of total viscosity with time, while those solns that obey Poiseuille's equation do not undergo any change in their total viscosity. Conclusion. The lowering of viscosity is due not to depolymerization of the nitrocellulose, as is commonly assumed, but to the destruction of the internal structure of the soln., i.e., to a lowering of its elastic properties. S. L. Madorsky

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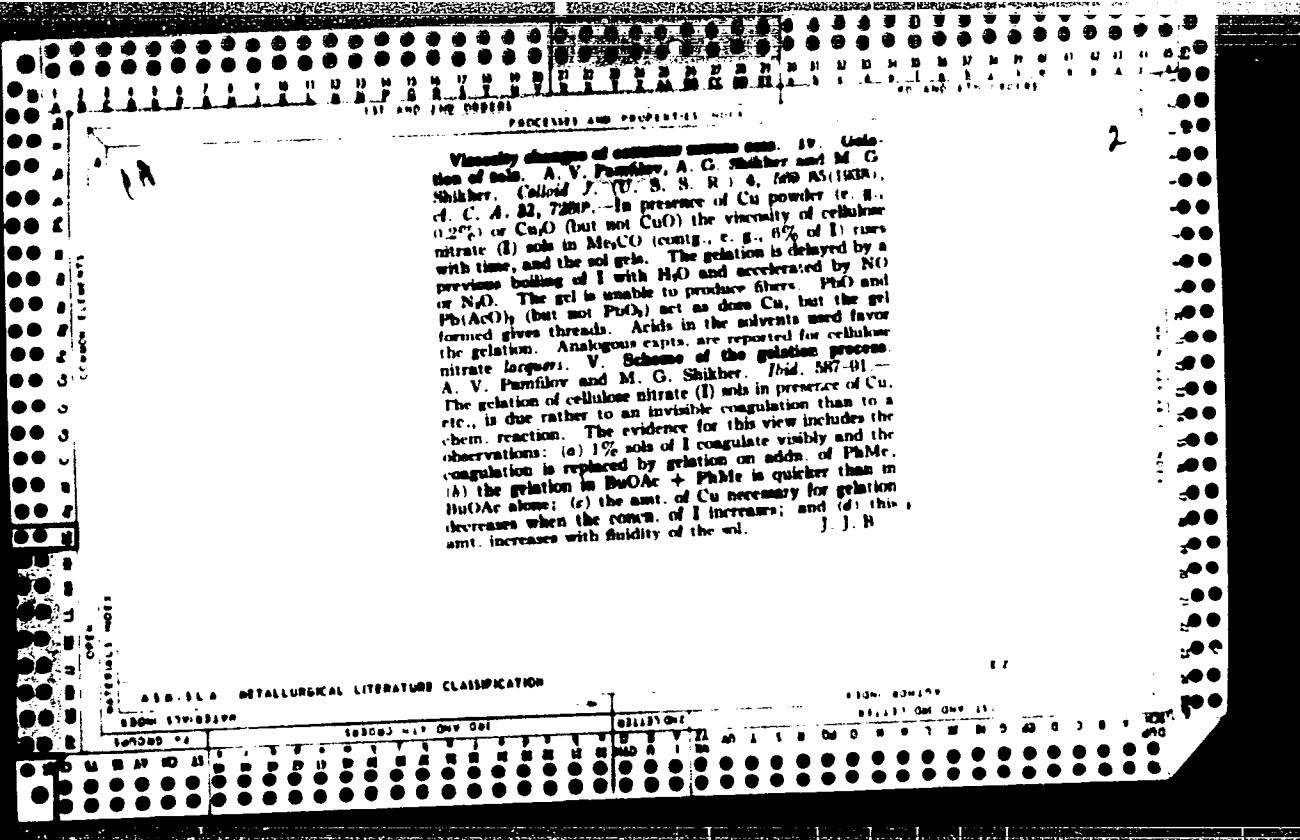
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Morphology of pigments VIII. E. G. Ivancheva  
*J. Gen. Chem. (U. S. S. R.)* 7, 2513-17 (in French 2517)  
(1937), cf. C. A. 32, 2375. - An x-ray study of a large  
no. of samples of PbO<sub>2</sub> showed that it exists only as one  
cryst. form of the tetragonal system. Ten references.  
IX. Dispersion of Prussian blue. A. V. Panfilov and  
A. S. Zhukov. *Ibid.* 2654-7 (in French 2657). - The  
ultramicroscopic size of particles of Prussian blue in glyc-  
erol, linseed oil and a soln. of oxalic acid was found to be  
of the order of 0.2 μ. S. I. Madorsky

## ATA 11A METALLURGICAL LITERATURE CLASSIFICATION

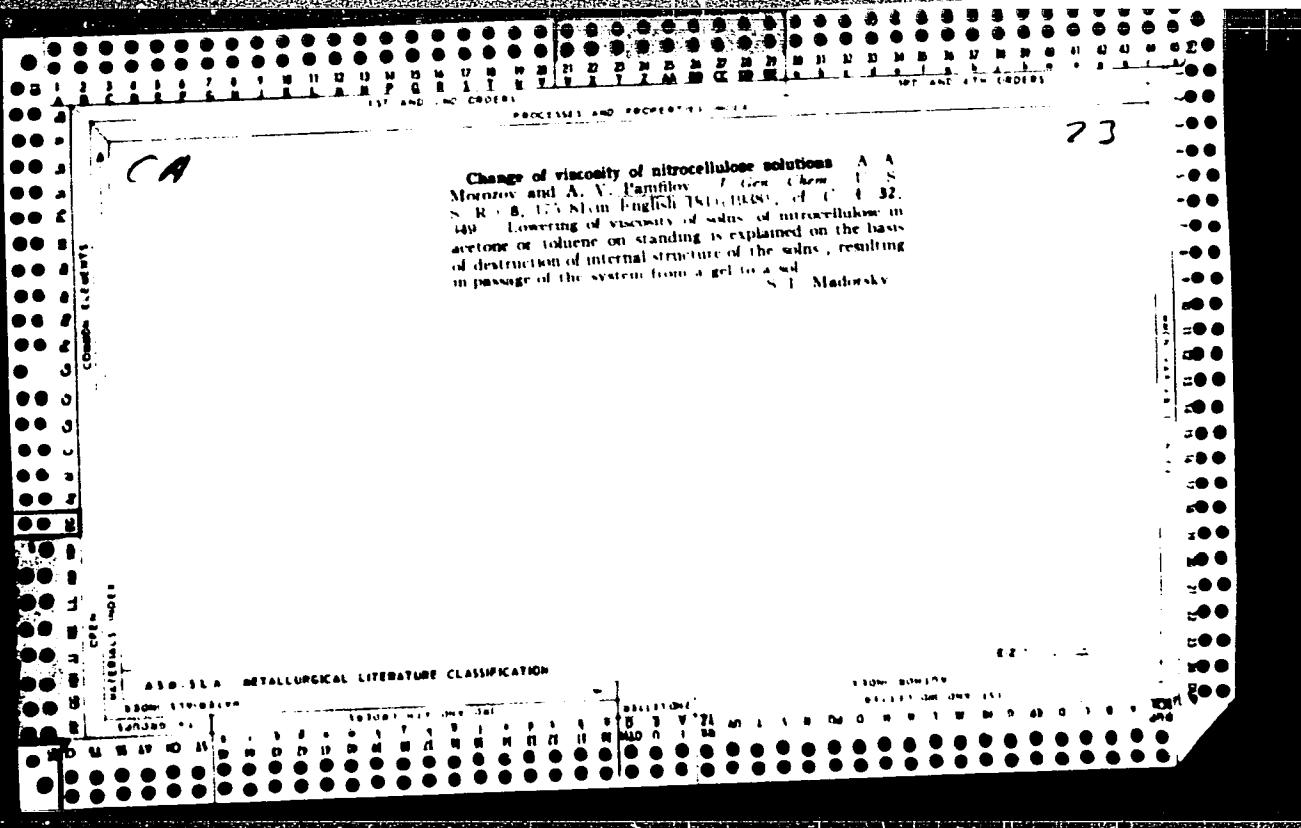


Morphology of pigments VII Expression of the results of the microscopic determination of the degree of dispersion A. V. Panfilov and O. S. Fedorova J. Applied Chem. U.S.S.R. 10, 1478 Stein French 14863  
1937, cf. C.A. 31, 286<sup>a</sup>. Dispersion as related to effective diam. and the coeff. of homogeneity were investigated. For effective diam. the mean arithmetic diam. is preferable to more complicated expressions. Seven refer-  
ences A. A. Podgorny



CH  
Drying of casein colors. A. V. Pamfilov and B. N.  
Rodnyakova. *Org. Chem. Ind. (USSR)* 5, 19-21  
(1980); cf. *C. A.* 81, 3170. The formation of irreversibly  
heat-dry casein colors by dehydration of the aqueous  
pastes at 80-100° is traced to thermal hydrolytic decomposi-  
tion of casein, since air-dry casein with 9.4% H<sub>2</sub>O either alone  
or in mixts. with pigments gives sol. products after  
drying at 90° for 8 hrs. Drying in thin layers or by spray-  
ing gives heat-stable colors. Chas. Blume

ASTM METALLURGICAL LITERATURE CLASSIFICATION



**Change in viscosity of nitrocellulose solutions III**  
Low viscosity cellulose A. V. Mays and A. V. P. Gholson  
and V. C. T. White, J. Cellulose Chem. Technol., 13, 123-130 (1967).  
In Table II, viscosity values of samples I, II and III  
under sample numbers IV, V, VI, VII, VIII, IX and X  
are given. In one series of experiments  
samples of nitro cellulose were heated in the presence of  
NH<sub>3</sub>OH solution containing 10% NH<sub>3</sub>OH. In another series  
of samples were heated in vacuum at 50°C for 24 hours  
at 1 atm of pressure. Viscosity values of 20°-min  
of nitrocellulose treated as above and non-treated are  
given as follows: for samples I, II and III, respectively,  
given as follows: for samples I, II and III, respectively,  
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given as follows: for samples I, II and III, respectively,

APPENDIX - BIBLIOGRAPHICAL LITERATURE CLASSIFICATION

Morphology of pigments XI. Structure of lampblack. A. V. Panilov and B. G. Ivancheva. *J. Non-Cryst. Solids*, U.S.S.R., No. 01030, p. 1-4, 1982.  
Colloidal samples of lampblack have the same X-ray pattern before and after heating to 1000 K. Samples heated above 1200° had a pattern in which the graphite structure was more pronounced and was coupled with large primary crystals as revealed by the width of interference lines.

S. J. Madorsky

26

Ca

Characteristics of lacquer pyroxylins A. V. Pamfilov,  
A. G. Shikher and M. G. Shikher J. Applied Chem  
U. S. S. R. 11, 427 in French 97 (1968). Mech  
properties of films prep'd from various pyroxylins were  
compared. The viscosity of the pyroxylin is the main  
factor affecting these properties of the film. The use  
of pyroxylins of different viscosities is advantageous in  
prep'g lacquer films of high quality Seven references  
A. A. Podgorni

Chemistry of titanium. X. Lead metatitanate. A. V. Panilova, E. G. Ivancheva and M. A. Rubkin  
Russian Chem. J. S. S. R. 11, 308-402 (in French  
1948). One mol. of TiO<sub>2</sub> and  
1.5 mols. of PbO were calcined at 800°. Removal of

excess of PbO by calc. with AcOH yielded lead metatitanate, const. TiO<sub>2</sub> 25.5-26.0 and PbO 73.4-73.6%  
The product (pigment) is stable in cold H<sub>2</sub>SO<sub>4</sub>, but decomposes in hot H<sub>2</sub>SO<sub>4</sub>, stable in concentrated alkali and partially decomposed in HNO<sub>3</sub> and HCl. Its solv. in H<sub>2</sub>SO<sub>4</sub>  
is much lower than that of TiO<sub>2</sub>. The pigment (d. 3.0)  
is not darkened by HS, and is stable under  
sun. (λ = 7.3) atm. condition. The x-ray investigation showed  
an atm. condition. The x-ray investigation showed  
a pseudobinary system of the perovskite type,  $a =$   
 $3.91 \text{ \AA}$ ,  $c = 13.6 \text{ \AA}$  and  $c/a = 3.48$ . Eight references.  
A. V. Panilova

PAMFILCV, A. V.

Morphology of pigments. XII. The method of micro-  
scopic determination of the degree of dispersion.

~~Vladimirov and O. S. Podgorny. J. Applied Chem. (U.S.S.R.) 11, 100-4 (in French 494) (1968), cf. C. A. 32,~~  
30872. Choice of medium, which provided a max. dispersion of pigment, the best distribution of pigment (by means of brush or glass rod) in this medium and standardization of the technic of calog. the diam. of the particles are necessary conditions for the data. Nine references.

A. A. Podgorny

Chemistry of titanium **XI** Hydrolysis of tetra chloride. A. V. Pamfilov, V. I. Kiseleva and G. V. Mulyantseva. *J. Applied Chem. U.S.S.R.*, 11, 621-60 in French 630-1938, cf. *C.A.* 32, 5310<sup>a</sup>. Titik of high quality was obtained by hydrolyzing  $TiCl_4$  in the presence of 25-30% of  $Na_2SO_4$ . The hydrolysis of 10%  $TiCl_4$  soln at 68-72° yielded the largest amt of Titik 61-1-88.2%. depending on the time of hydrolysis and of  $Na_2SO_4$  soln the least. At 98-100° there was no difference in the yield produced by hydrolyzing 5, 10, 15 and 20% solns. About 15 literature and 5 patent references.

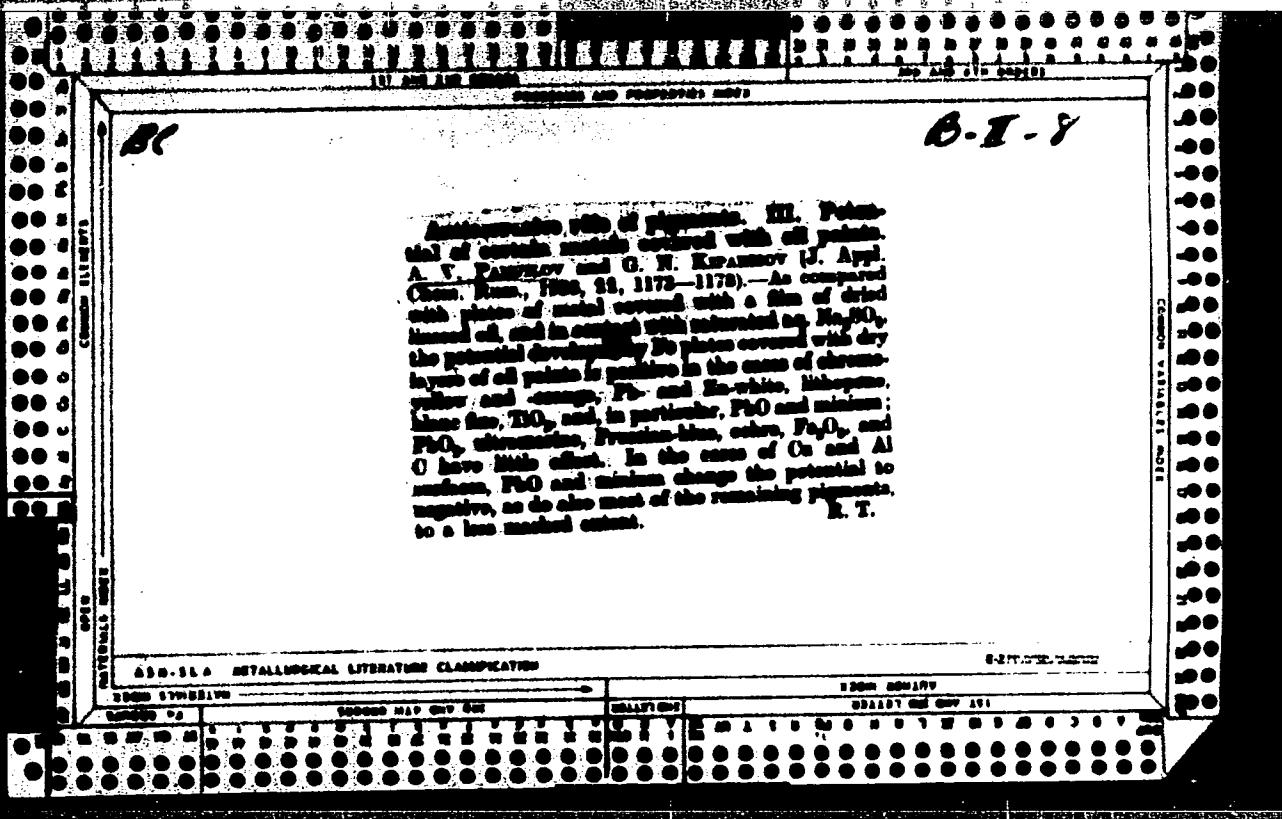
**XII** Decomposition of the titanium-manganite concentrate with sulfuric acid. A. V. Pamfilov, E. G. Ivancheva, V. V. Alyaeva and I. M. Soboleva. *Ibid* 631 in German 637. The decompn of the concentrate under the conditions of "solid phase," "liquid phase" and "middle phase" was investigated. The decompn under the conditions of "middle phase" was optimal. The conditions of "middle phase" are similar to those of "solid phase," but the decompn mass was prevented from solidifying by the addn of water. The following conditions for the "middle phase" decompn were observed: 1.4-1.5 parts of  $H_2SO_4$  per part of concentrate, the  $H_2SO_4$  in the mixt should be of the order 70%, the temp of decompn 130-180°, time 35-40 min, and adding water enough to compensate for water evapd., under these conditions the decompn reached about 90%. Numerous references.

*BC*

Influence of aqueous suspension of pigments on the potential of certain metals. A. V. PAMPILOV and G. N. KIRAKISOV (J. Appl. Chem. Russ., 1938, 11, 908 -104). Fe is passivated by eq. suspensions of PbO or minium, and is slightly activated by a no. of common pigments (PbCrO<sub>4</sub>, Pb or Zn white, lithopone, PbTiO<sub>3</sub>, PbO, ultramarine, Prussian-blue, ochre, graphite, lampblack). All of these pigments activate Al and Cu surfaces.  
R. T.

## AIA 116 METALLURGICAL LITERATURE CLASSIFICATION

EDITION	TYPE	TECHNOLOGY	CLASSIFICATION	EDITION	TYPE	TECHNOLOGY
EDITION 2	TYPE 2	TECHNOLOGY 2	CLASSIFICATION 2	EDITION 2	TYPE 2	TECHNOLOGY 2
EDITION 2	TYPE 2	TECHNOLOGY 2	CLASSIFICATION 2	EDITION 2	TYPE 2	TECHNOLOGY 2
EDITION 2	TYPE 2	TECHNOLOGY 2	CLASSIFICATION 2	EDITION 2	TYPE 2	TECHNOLOGY 2
EDITION 2	TYPE 2	TECHNOLOGY 2	CLASSIFICATION 2	EDITION 2	TYPE 2	TECHNOLOGY 2



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Decreasing the consumption of linseed oil in the manufacture of oilcloth. A. V. Pamfilov and B. G. Ivancheva. *Trans. Inst. Chem. Tech. Russ.* (U. S. S. R.) No. 2, 93-6 (1939).—Expts. were carried out to det. the possibility of using substitutes for linseed oil in oilcloth manuf. (acyclocarboxylic acids derived from petroleum were found unsatisfactory. A fish oil "Ivan" which was polymerized at 200° for 10 hrs. and also castor oil which had been treated with  $\text{Al}_2\text{O}_3$  at 200° were found satisfactory. The use of the fish and castor oils made possible a reduction in linseed oil consumption by 50%. In addition the product was not inferior to that prep'd. with linseed oil alone. The quality of the oilcloths thus prep'd. was higher than that in which naphthenic acids were used. B. Z. Kamensk

## ASD-11A METALLURGICAL LITERATURE CLASSIFICATION

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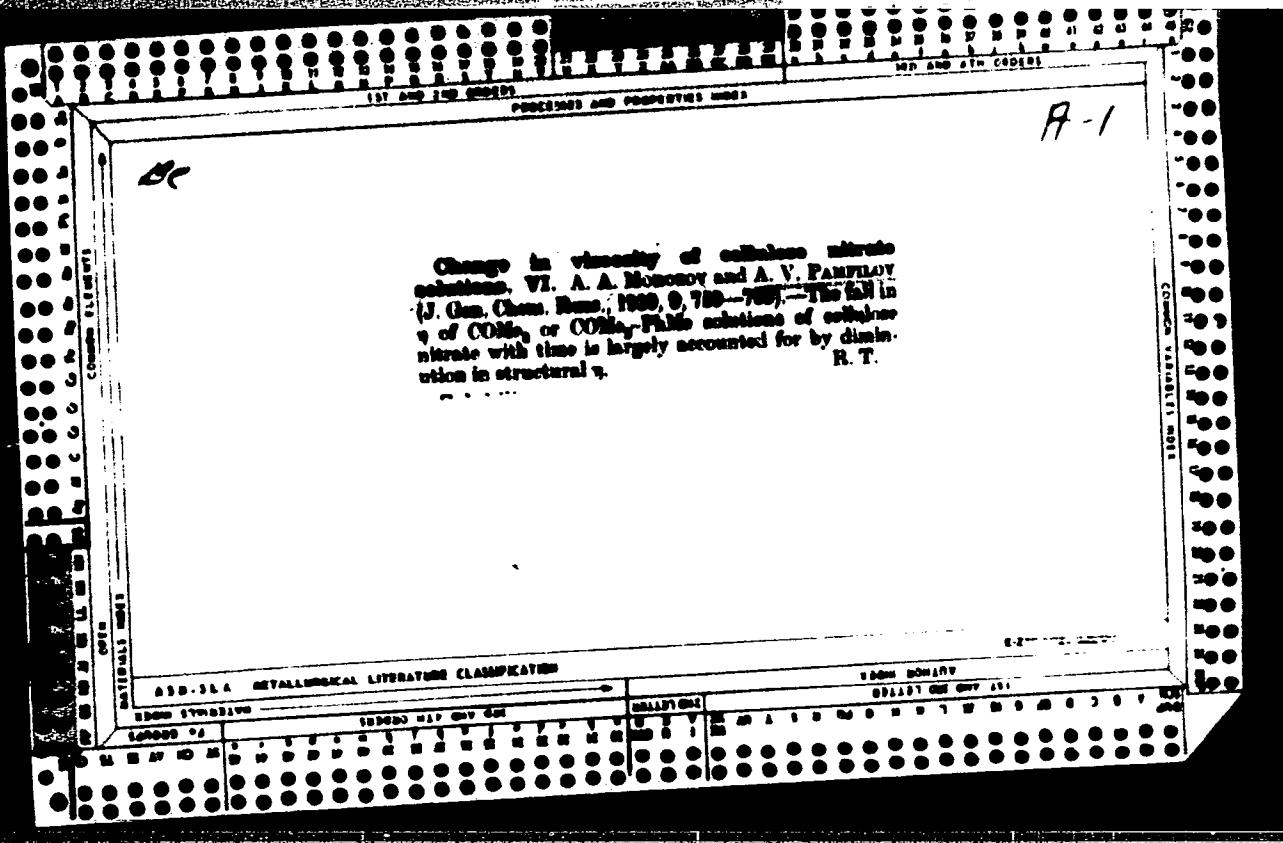
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Titanium. XIV. Anatas and rutile structures in precipitation. A. V. PANfilov and E. G. IVANTSOVICHVA (J. Gen. Chem. Russ., 1959, 9, 1739—1761).— $TiO_2$ , prep'd. from aq.  $TiCl_4$ , has the rutile, and from aq.  $Ti(NO_3)_4$  or  $Ti(SO_4)_2$ , the anatas, structure. In general, the latter structure is obtained in presence of complex-forming ions. R. T.

Lab of Inorganic Chem., Belorussian University

## ADD-15A METALLURGICAL LITERATURE CLASSIFICATION

EDITION ESTABLISHED

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SERIALS 1950

EDITION ESTABLISHED

1950 EDITION 1950 ONLY ONE

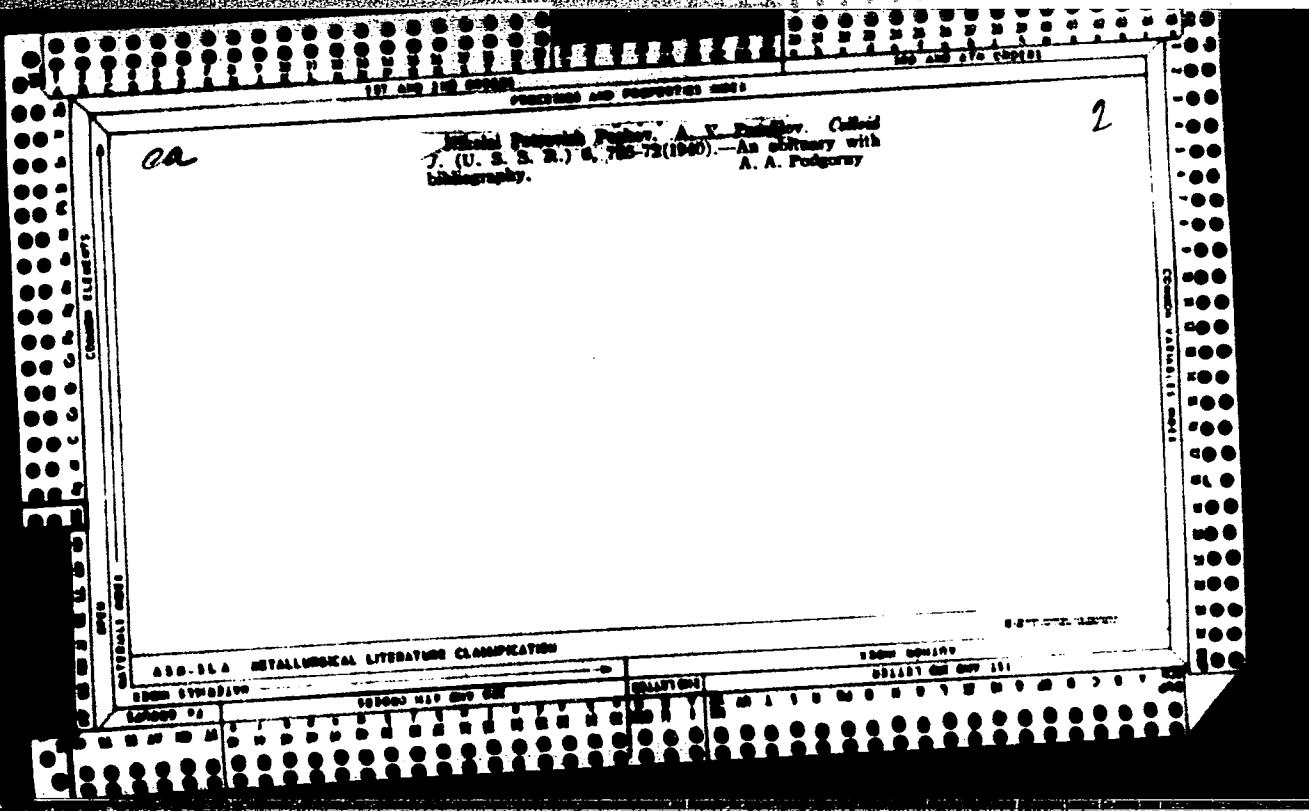
The pH of aqueous suspensions of pigments as its criterion of anticorrosive action. A V. Fomichev and G. N. Kupriyanov, J. Applied Chem. (U.S.S.R.) 12, 34-7 (in French, 1971) (AND), cf. C.A. 65, 08227. The pH of eq. suspensions of pigments was measured with the glass electrode. The passivity of Fe in eq. suspensions of litharge and minium is attributed to low H-ion concn. (pH = 8.36 and 9.27, 8.49, resp.). With the exception of Prussian blue (pH = 8.01), all pigment suspensions (such as  $ZnO$ , white lead, chrome yellow, lithopone, black fine, ultramarine) had pH between 6.23 and 7.34. A A P

Chemistry of titanium XIII Separation of titanium dioxide from sulfate solution A. V. Pamfilov, E. G. Ivancheva and I. M. Soboleva. *J. Applied Chem. U.S.S.R.* 12, 226-33 (in French, 233) (1939). cf. *C.A.* 32, 6569. — The methods of Mecklenburg (*C.A.* 24, 3330) and Blumenthal (*C.A.* 10, 3257) are compared. The second method yielded a product of better color and form than that obtained by the first method. Data are tabulated.  
A. A. Polyansky

SYNTHETIC METALLURGICAL LITERATURE CLASSIFICATION

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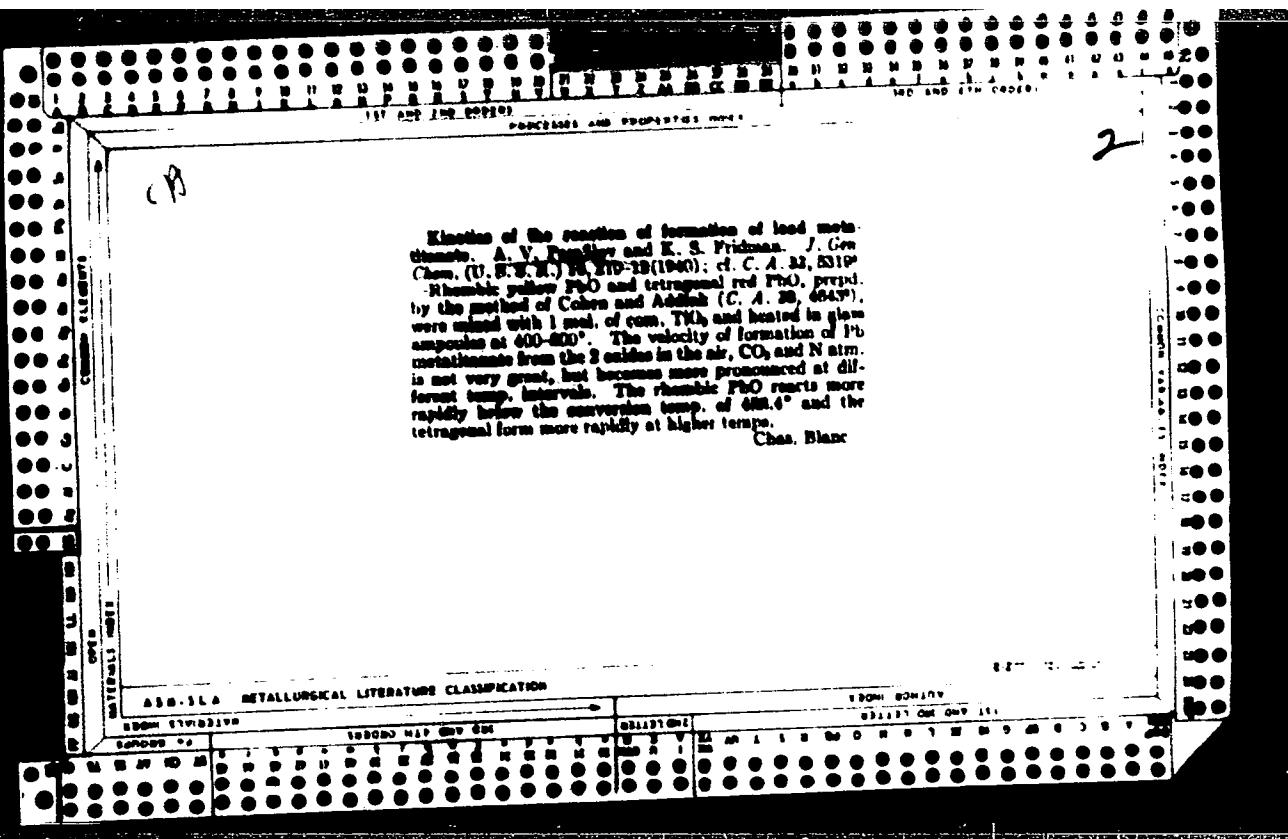


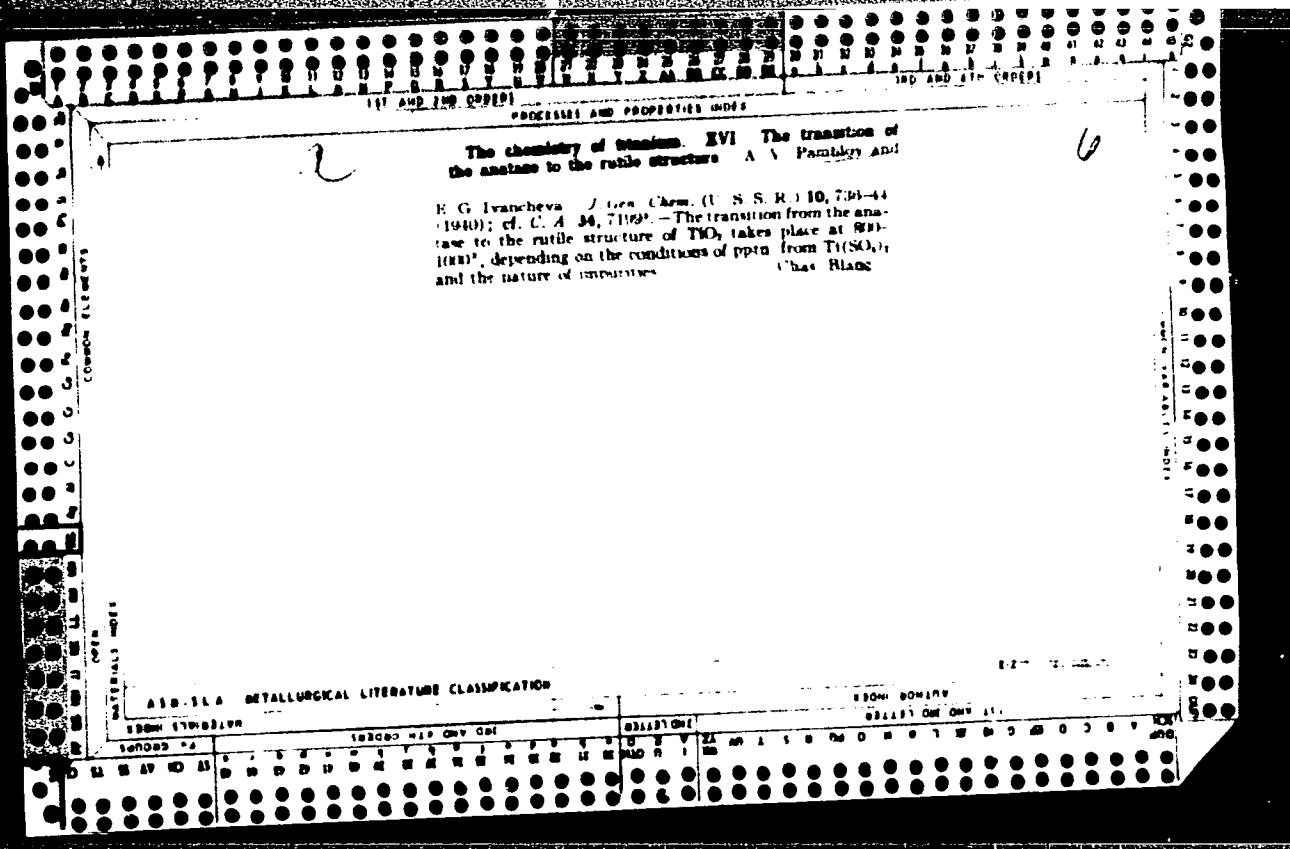
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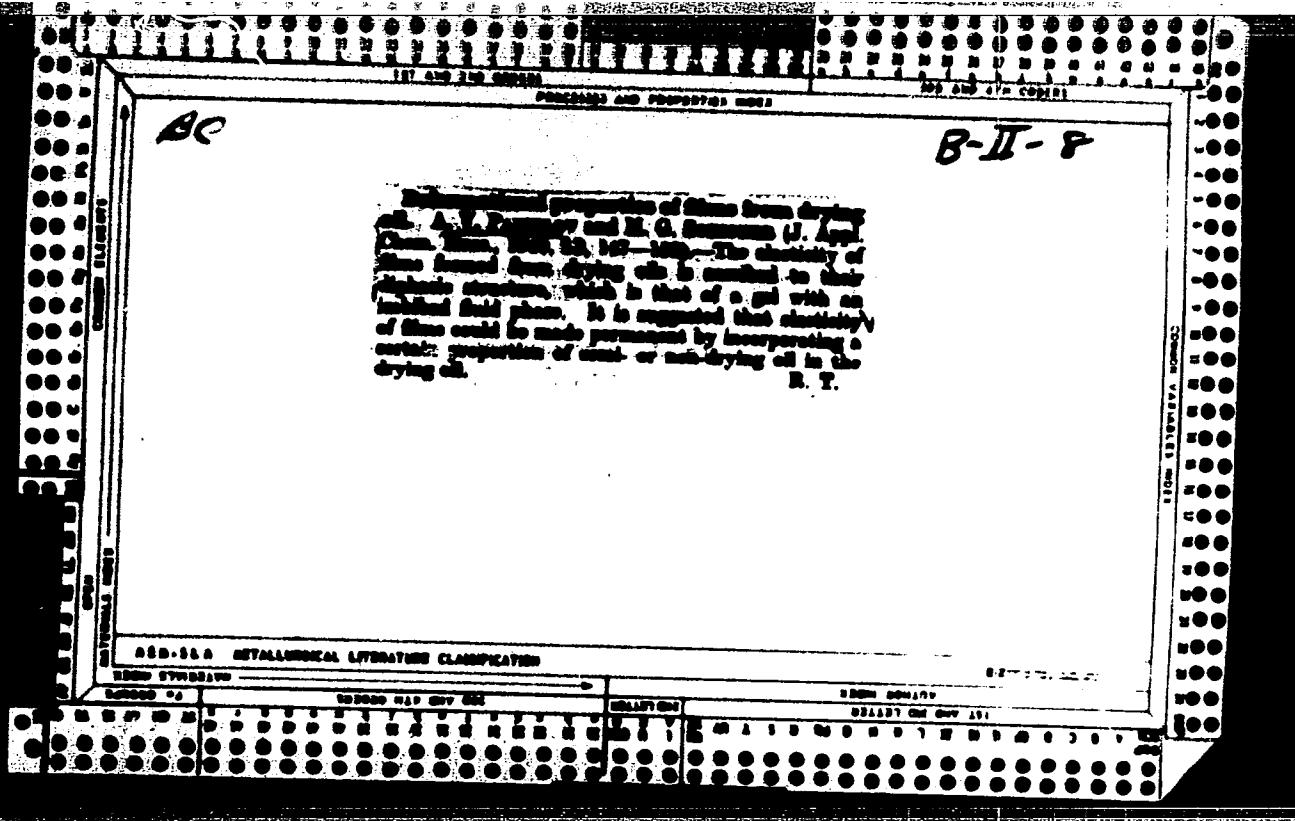
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The chemistry of titanium. XV. Isomorphous structures of titanium dioxide. N. A. Pavlova and V. V. Ivancheva. Izv. Akad. Nauk SSSR 10, 1964, p. 134, 3817. All attempts to obtain two of the two known isomorphous structures of titanium dioxide from its salts by thermal treatment in air have failed. Contrary to the literature data, both prep. from its salts by thermal treatment in the lab has only the single and metastable structure.

Labs Inorganic Chem., Moscow 117-11



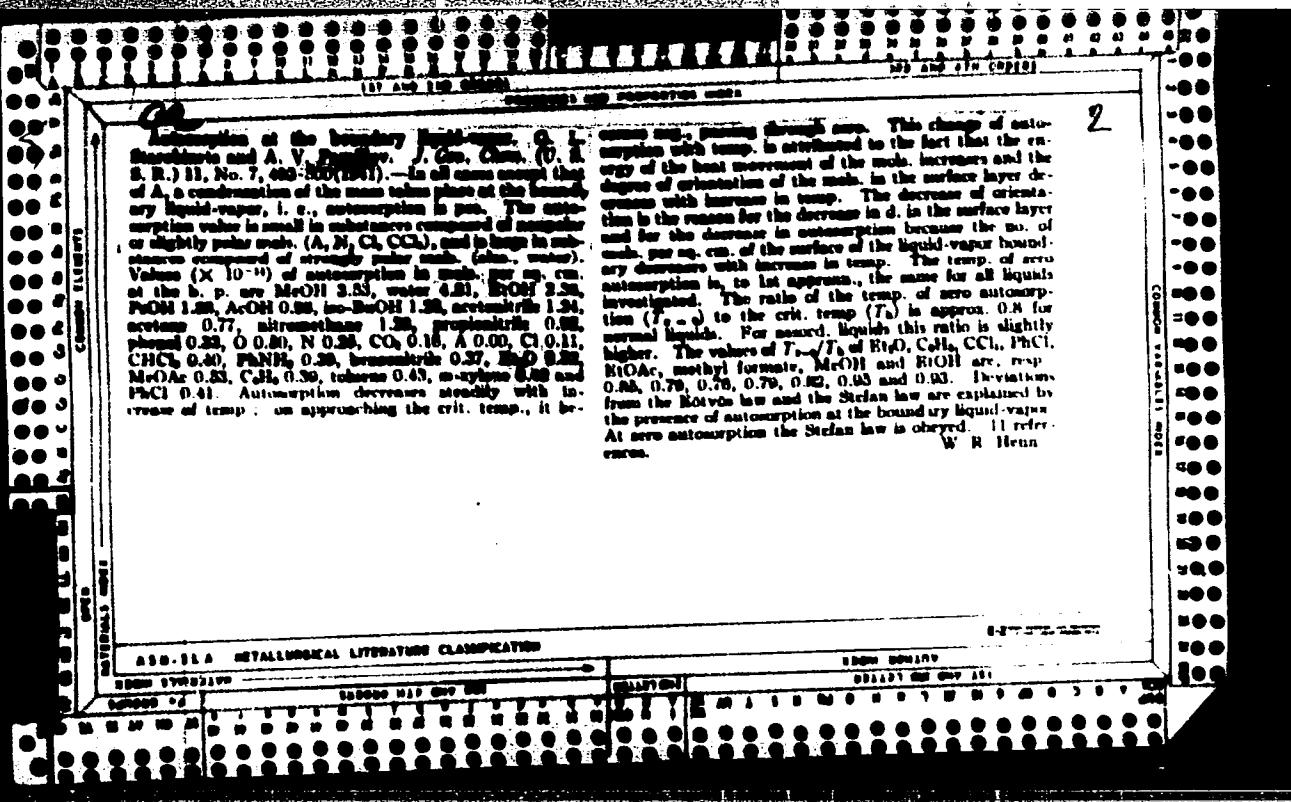




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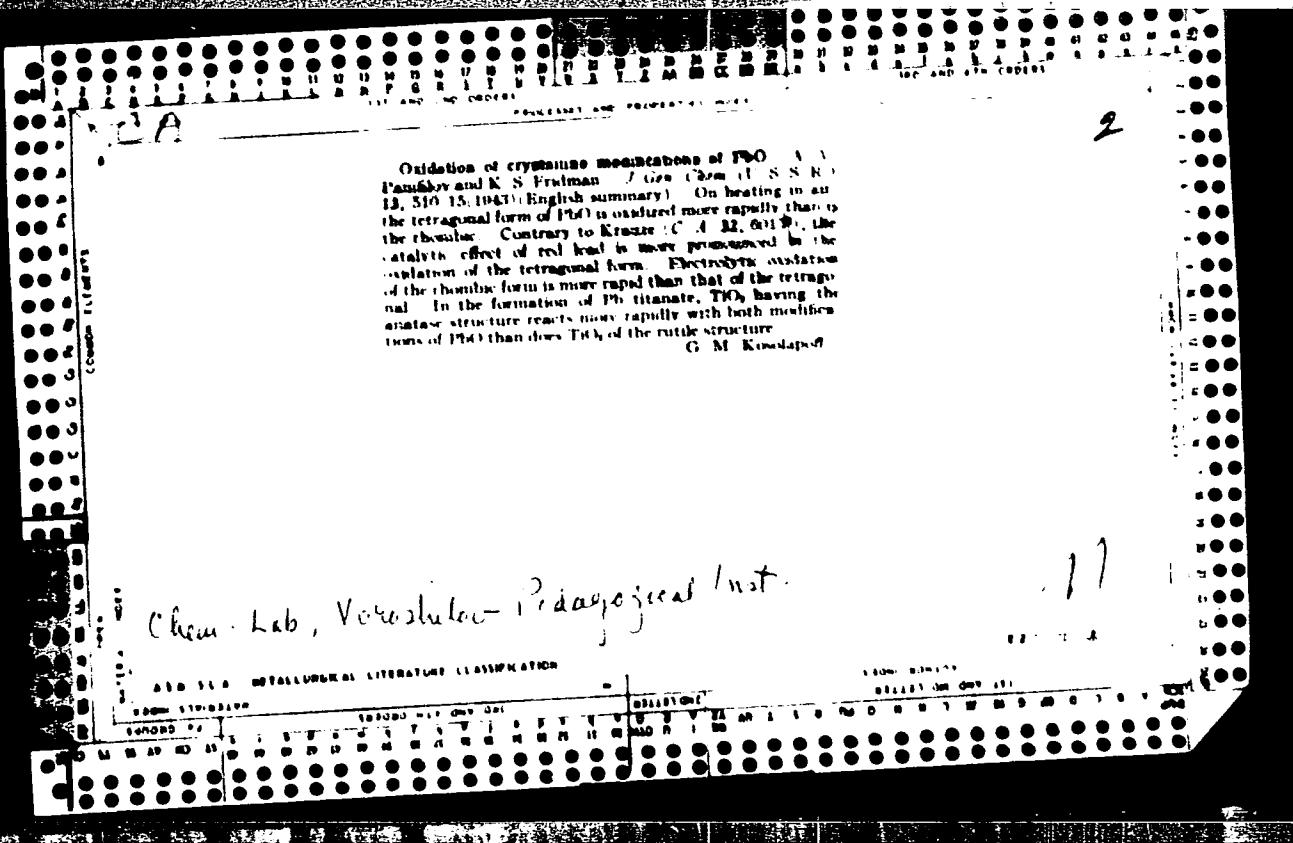
Chemistry of titanium: XVII. Effect of calcination on the properties of titanium dioxide. A. V. PAVLOV, E. G. IVANOVICHVA, AND K. F. TAKHMETOV. *Zhur. Probl. Khim.*, 13, 1310-14 (1940); *Chem. Ab.*, 35, 2432 (1941).—The appearance of a yellow color in  $TiO_2$  on calcining was due to the presence of Fe oxides and had no connection with the transition of the anatase structure into the rutile structure. Sufficiently pure samples remained white or became slightly grayish in this transition. The optimal temperature of calcining products separated from sulfate solutions was somewhat higher than 800°. The product of rutile structure was a better pigment than that of anatase structure; it had a better covering power and required less oil.

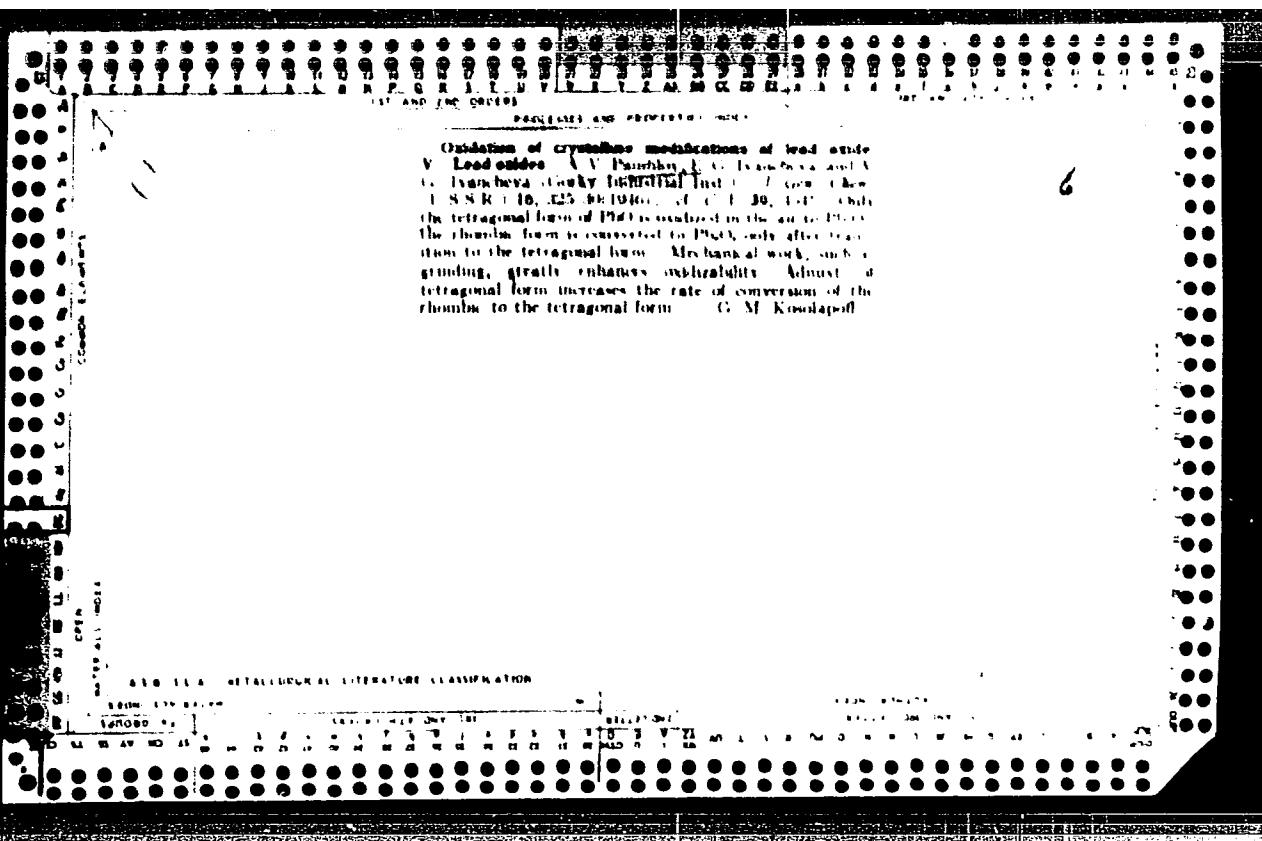


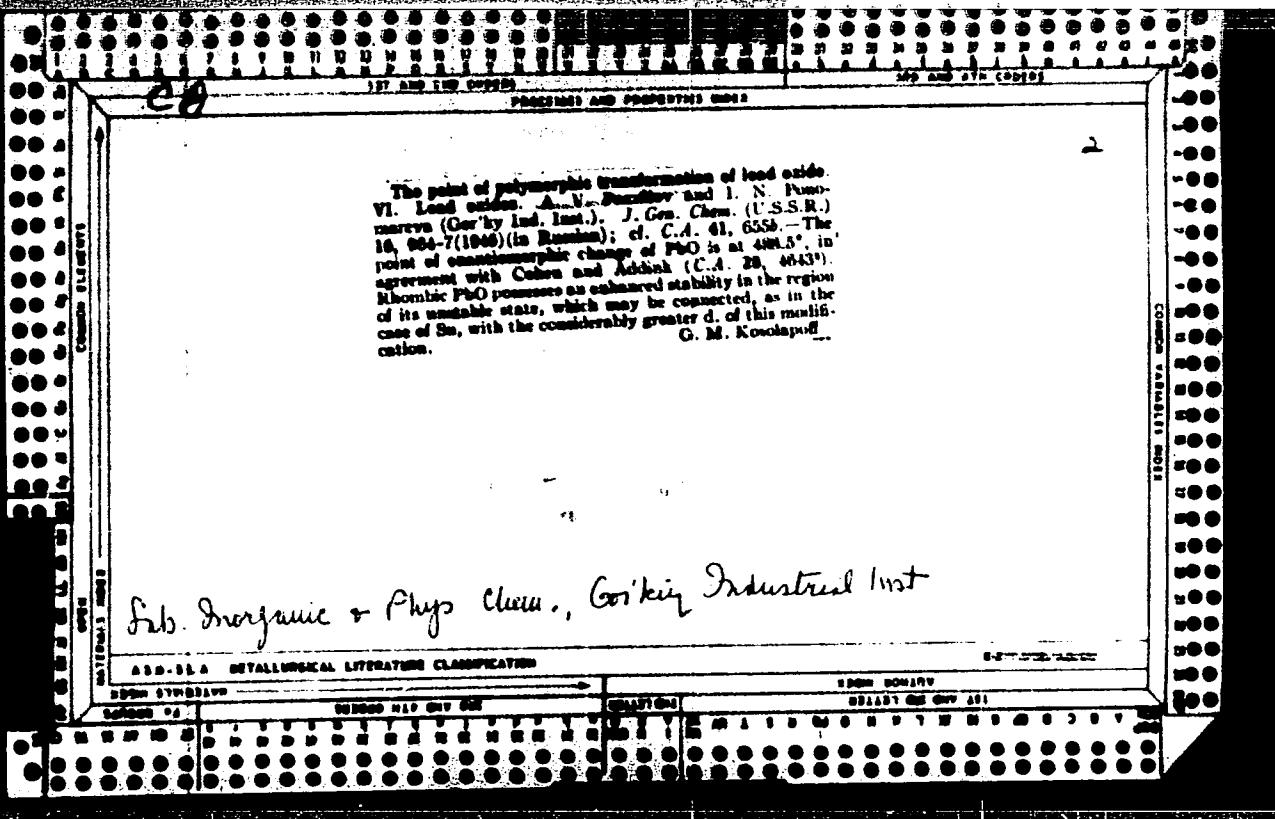
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Surface activity of alcohols in benzenebenzene. A. V. Pamfilov  
and G. L. Starobinets. *J. Gen. Chem. Russ.*, 1941, 11, 501-506.  
Using the max. bubble pressure the  $\gamma$  of some solutions of MeOH,  
EtOH, PrOH, and BuOH in PhBr is measured at 20°, 30°, and  
40°. The curves for  $\gamma$  against concn. (mol. per c.c.) are almost  
linear for MeOH and EtOH and agree with Schlichovici's equation  
for the other alcohols. The energy change associated with the  
transfer of a CH<sub>3</sub> group into the surface is for H<sub>2</sub>O ~3 times as  
large as for PhBr. Tricke's rule holds for PhBr, but the const. is  
1.3 instead of 3 as in H<sub>2</sub>O. J. J. B.

ATA-SLA METALLURGICAL LITERATURE CLASSIFICATION







Viscosity of solutions of nitrocellulose and cellulose VII. V. A. Pandikov, A. A. Mironov, and M. V. Rostovtsev. Zhur. Neorg. Khim., 19, 614-619 (1974) [in Russian]. The viscosity of cellulose VII solution in 40% aqueous nitric acid was measured at 25°C. The viscosity of cellulose VII solution in nitrocellulose solution (dissolved in MeOH) was also measured. Cellulose VII has the lowest viscosity under the same conditions; the highest viscosity is observed in water (about 1 mm Hg) and the highest pressure (close to zero) is at the limit of turbidity as registered in the bubble-flow viscometer. For the same solvent, the length of change of viscosity ( $\tau$ ) = 100 days during which  $\eta$  decreased significantly was determined. Solids with higher  $\eta$  also show a longer  $\tau$ : nitrocellulose I, N, II, III, IV, V, VI, VII, VIII, IX (104-270 days); cellulose VII (20-25 days); cellulose I (40-100 days); cellulose II (10-20 days); cellulose III (10-15 days). In solvents I and II,  $\tau$  is initially small (3 and 7 days, respectively),  $\eta$  = 2-3 and 18 cP, the latter falling after 1 month. Absence of change of  $\eta$ ,  $\tau$  indicates chemical stability and speaks against depolymerization as the cause of change of  $\eta$  and  $\tau$  with time. Relation

of the viscosity ( $\eta$ ) of cellulose VII to the viscosity of its aqueous solution (V) was established for cellulose VII and cellulose I. It was found that the viscosity of cellulose VII solution is higher than that of cellulose I solution. The viscosity of cellulose VII solution is higher than that of cellulose I solution. The viscosity of cellulose VII solution is higher than that of cellulose I solution. The viscosity of cellulose VII solution is higher than that of cellulose I solution.

APPENDIX - METALLOGICAL LITERATURE CLASSIFICATION

Ferruginous pigments from marsh ore. A. V. Pampushny and L. N. Ginzburg. *J. Applied Chem. (USSR)* 19, 1115-20 (1946) (in Russian). Marsh ore was found suitable for use as raw material for ferruginous and iron-free pigments. The mining process consists in classification by Fe content (samples with higher Fe are darker and harder) and calcining and grinding. The ore gave no definite x-ray diagrams. α-Fe<sub>2</sub>O<sub>3</sub> is obtained around 500° and is converted into a Fe<sub>3</sub>O<sub>4</sub> at 735-750°. The influence of calcining between 500° and 1000° for 1-4 hrs on d<sub>50</sub>, particle size, oil consumption, and covering power was investigated. O. W. Bauer.

